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BRITAIN'S MOTOR SPORTING WEEKLY



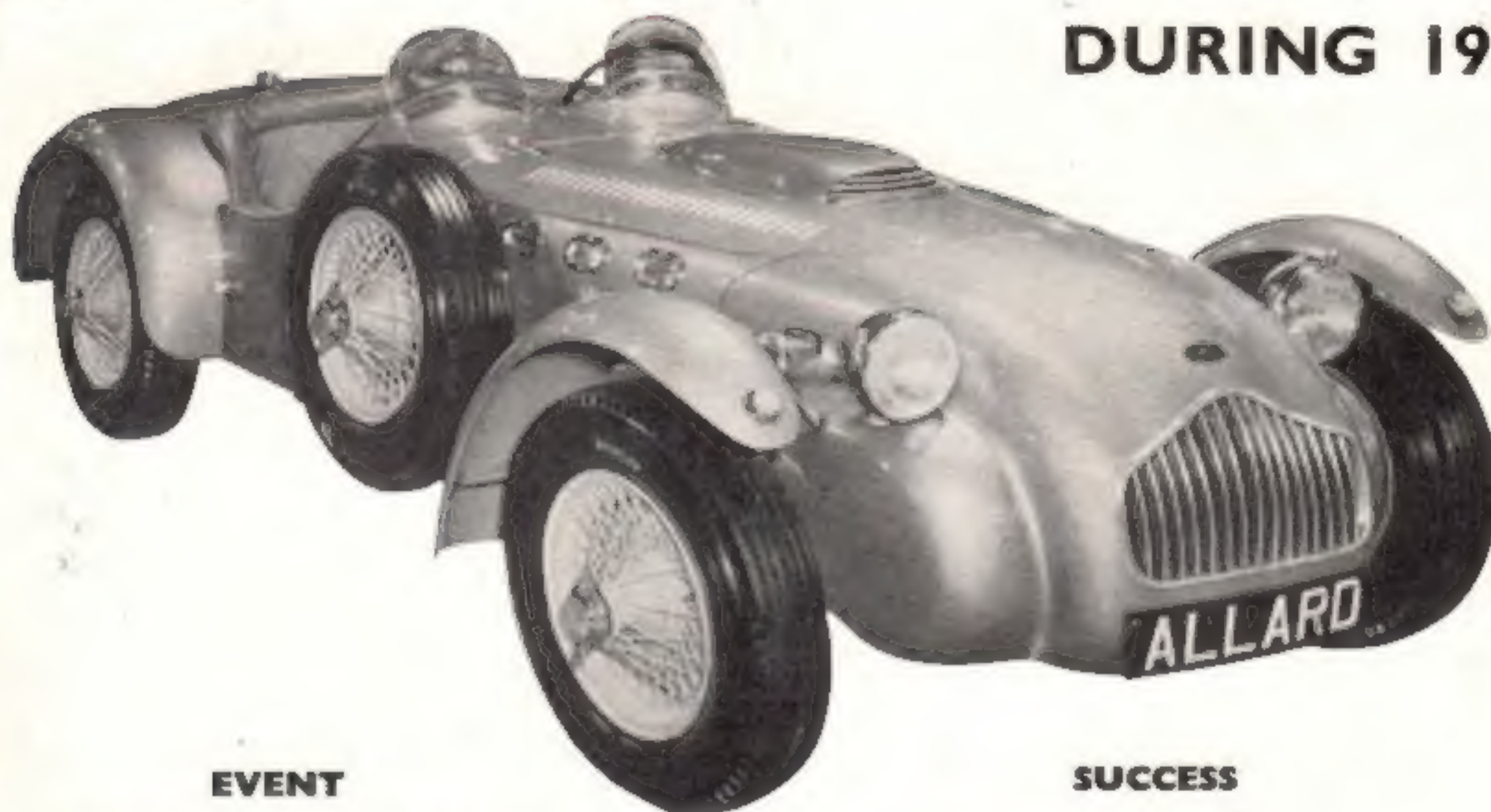
IN THIS ISSUE

FRAZER-NASH WIN AT SEBRING, U.S.A. | FERRARIS SWEEP THE BOARD AT SYRACUSE | THE ALTA STORY, PART 2.
BY C. POSTHUMUS | BETTER HANDICAPPING | ULSTER RACING SEASON OPENS | IN SUPPORT OF THE TWO-STROKE

JOHN BOLSTER • RUSSELL LOWRY • WILSON McCOMB • BARCLAY INGLIS • PHILIP SMITH



INTERNATIONALLY SUCCESSFUL DURING 1951



EVENT		SUCCESS
PARIS-ST. RAPHAEL RALLY	...	Won Lausanne Hill-Climb
ULSTER TROPHY RACE	...	Fastest Lap In Handicap Race
SHELSLEY WALSH HILL-CLIMB	...	Won Unlimited Production Car Race and Team Win
TULIP RALLY	...	Member of Winning Team
ALPINE RALLY	...	Won Coupe des Alpes. Won Coupe de Mont Blanc. Won Cortina Cup. Won Milan Gold Cup. Won Auto Club Milan Cup
LEINSTER TROPHY RACE	...	Set up new lap record
EVIAN-MONT BLANC RALLY	...	Won Clarkson Cup. Won Unlimited Class
IBSLEY RACES	...	Won Megeve Hill-Climb (New Record)
BRIGHTON SPEED TRIALS	...	Won Unlimited Sports-Car Class
REST-AND-BE-THANKFUL HILL-CLIMB	...	Fastest Sports-Car (New Record)
PRESCOTT HILL-CLIMB	...	Won Ladies' Cup
GRAND PRIX DU SALON	...	Won Unlimited Class
ISLE OF MAN ROAD RACE	...	Won Unlimited Sports-Car Class
		Won Unlimited Racing-Car Class
		1st British Car
		Won Unlimited Class

1952 WON MONTE CARLO RALLY

with a Production Saloon

First British Outright Victory for 21 Years

Autosport

BRITAIN'S MOTOR SPORTING WEEKLY

Incorporating "THE MOTOR CLUB"

Managing Editor: GREGOR GRANT

Vol. 4. No. 12.

March 21, 1952

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CONTENTS

	Page
Pit and Paddock	354
Sports-News	355
Sebring "12 Hours" and Syracuse Races	356
In Support of the Two-Stroke, by Philip H. Smith, A.M.I.Mech.E.	357
Scotch Corner, by "Aeneas"	358
The Ulster Racing Season Opens	359
Better Handicapping, by Barclay Inglis	361
The Z.F. Differential, by John Bolster	363
The Burnham Rally	365
The Alta Story—Part 2, by C. Posthumus	366
Russell Lowry's Northern Lights	372
Bolton-le-Moors Rally Driving Tests	373
Correspondence	374
News from the Clubs	376
The Newest Emeryson	384

NOTICES

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EDITORIAL

THE struggle for a firm footing in the vital dollar export market has resulted in Round 2 of the International contest going to Great Britain. Following the Monte Carlo Rally successes, a British car has scored a notable victory in the important 12-Hours International Sports-Car race at Sebring, U.S.A. First place went to a Frazer-Nash, a Jaguar was runner-up, and British cars also occupied 5th, 6th, 8th, 9th, 11th and 13th places.

This demonstration, in the most practical way possible, of the race-winning potentialities of British-made cars, will not escape the notice of discriminating American sports-car purchasers. It is evident, more than ever, that the main hope in establishing a sound dollar export market lies in the design and performance of our sporting and high-performance cars. Italy, France and Germany fully realize this, and during 1952 these countries will make a strong bid to halt the growing list of British successes.

In recognition of the tremendous publicity value of British victories in important International events, AUTOSPORT has decided that, following any such victory, the familiar red cover of the magazine will be replaced by one printed in British Racing Green. Thus, at a glance, readers all over the world will immediately appreciate that this country has achieved something of note.

It is to be hoped that during 1952 there will be more green than red covers!

MEDICAL certificates continue to provide a main topic of conversation wherever racing men get together. Whilst agreeing that some sort of certificate of fitness is essential, many competitors and would-be competitors would like to see the regulations modified, so that the full R.A.C./F.I.A. certificate is not applicable to race meetings run purely for the benefit of club members. Some clubs view the introduction of the certificate with disfavour, particularly where the infrequent competitor is concerned. It is argued that many entrants in closed club events may take part in only one race each season. If the unavoidable expense of procuring a medical certificate is added to the cost of an entry fee and so on, it is quite possible that a great many "one event" competitors will give up their annual race meeting, rather than go to the trouble of procuring the necessary certificate.

Undoubtedly the "medical" is hard on clubs which organize events attracting the very occasional competitors. This applies particularly to vintage, veteran and "one-make" organizations in whose ranks the majority of "one race a year" drivers are to be found. As things stand at the moment, there is a touch of Marx Brothers in the fact that the entrant of a 1902 Whatsit in a handicap event not only has to provide himself (or herself) with a medical certificate, but has to wear a crash-helmet—with a probable maximum speed often not exceeding 20 m.p.h.

OUR COVER PICTURE

BRITISH HOPE: John Heath in the first of the 1952 H.W.M.s. The marque will play a prominent part in International Formula 2 races.



GERMAN CHALLENGER: The 1952 3-litre sports coupé Mercedes-Benz, which will make its racing debut in the Mille Miglia. A team is also entered for Le Mans.

CONFIRMED by the Ulster A.C. that the Ulster Trophy race at Dundrod on 7th June will be for Formula 1 cars.

AT the time of going to press, competitors not in favour of changing trials regulations outvoted the "Ayes" by the large margin of 70 per cent. to 30 per cent. Full report next week.

THIS said several SM1500 Singer chassis and engines have gone to Italy to be fitted by Farina with special sports bodywork.

HANS STUCK will drive a Porsche in the Coppa Inter-Europa on 14th April. His team-mates will be Count "Johnny" Lurani and von Hanstein.

LOUIS ROSIER will pilot a 4½-litre L.G.P. Ferrari at Piriapolis in the two Uruguayan races on 23rd and 30th March. Giraud-Cabantous and Trintignant are on 4½-litre Lago-Talbots.

SACHA GORDINE, piqued by non-acceptance of their Le Mans entry, have abandoned temporarily plans for sports-car production, and will concentrate entirely on single-seaters for 1952. The Formula 2 car will not be ready for either Pau or Marseilles.

1950 INDIANAPOLIS winner Johnny Parsons is in Italy visiting Ferraris; he will return to the U.S. with one brand new 4½-litre G.P. car for this year's "500", but may give it a preliminary try-out in European events, if any suitable races can be found.

Pit and Paddock

MICK HAWTHORN will drive a MCooper-Bristol in Formula 2 events this season.

TULIP Rally Speed Test on 25th April will consist of 10 laps of the Zandvoort circuit in reverse direction, i.e., anti-clockwise.

DISC-BRAKES will almost certainly be seen on certain of the fastest of the British cars at Le Mans.

NEXT week's issue will contain exclusive test impressions of what is probably Great Britain's fastest 1½-litre sports-car.

PHILIP FOTHERINGHAM-PARKER will be seen at the wheel of Bill Black's 2-litre Formula 2 Connaught in several events this season, including the B.R.D.C. Daily Express Race.

SPORTS Ferrari driven by Jim Kimberley and Marshall Lewis won the Vero Beach 12 hours race in America from an Allard shared by Tom Cole and Paul O'Shea.

FRENCH Rallye du Nord was won by G. Lapchin's 750 c.c. Renault. Class wins went to Lapauze (Porsche), Monneret/Honoré (Citroën) and Lapchin.

THE 1952 V-8 A.F.M. is now fitted with two double-choke Weber carburettors in place of the eight Amals previously employed. Bore and stroke are now 67 mm. and 70 mm., and the engine is reported to give 170 b.h.p. at 8,000 r.p.m.

THE abounding rumours of a new E.R.A. racing-car are now confirmed by the official announcement by E.R.A. Ltd. of Dunstable that a Formula 2 machine is nearing completion, and will be driven by Stirling Moss in the second half of the 1952 season.

Two more cars are also to be built, and drivers for these will be announced later. E.R.A. team manager will be R. S. ("Dick") Wilkins of successful Velocette motor-cycle racing team fame.

KEITH MARTIN, Australian Hill-Climb Champion, 1951, has arrived in this country, and plans a full season's racing with a twin-o.h.c. Norton - engined Cooper "500", and a J.A.P. "1,100".

BUTTI'S "African End-to-End" achievement was liable to make us forget that in 1951, Lapalu (Land Rover) not only won the 1,000-2,000 litre category but tied for first place in the general classification of the difficult Mediterranean-Cape Town Rally.

TONI ULMEN will drive the new T.o.h.c. Veritas in the B.R.D.C. Daily Express International Trophy Race on 10th May. He should not be confused with the American, Tony Ulmann, president of the AAA sports commission, who is taking delivery of the new D.B., illustrated in last week's issue.

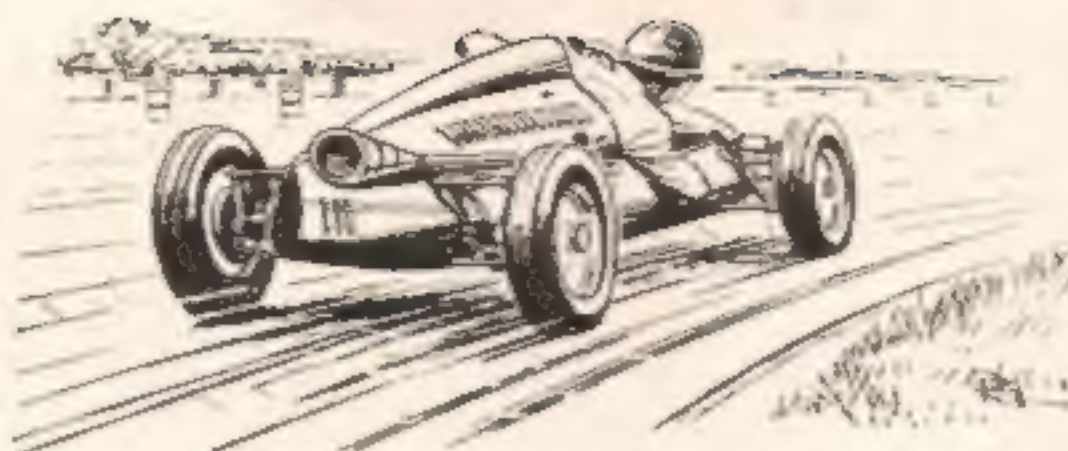
PARIS-ST. RAPHAEL RALLY

CONFIRMED results of the Paris-St. Raphael Rallye Feminin show that British competitors Mrs. Nancy Mitchell (H.R.G.) and Miss Betty Haig (Healey) secured class wins. The placings are as follows:—

General Classification: 1, Mme. Simon (Renault), 3,183 points; 2, Mme. A. de Rocquessort (Dyna-Panhard), 3,148; 3, Mme. Pochon (Renault), 3,071; 4, Mme. Delorme (Renault), 2,843; 5, Miss B. Haig (Healey), 2,771; 6, Mrs. N. Mitchell (H.R.G.), 2,765; 7, Mme. Parsy (Dyna-Panhard), 2,756; 8, Mme. Thirion (Porsche), 2,754; 9, Miss B. Marshall (M.G.), 2,729; 10, Mme. Henris (Simca Aronde), 2,727; 11, Mme. Imbert (Simca Aronde); 12, Contessa della Chiesa (Fiat); 13, Mme. Boucher (Simca Aronde); 14, Mme. Jumeaux-Laford (Renault); 15, Mme. Hauray (Simca Sport). 14 other finishers.

Class Winners, 750 c.c.: Mme. Simon (Renault). **1,100 c.c.:** Contessa della Chiesa (Fiat). **1,500 c.c.:** Mrs. Nancy Mitchell (H.R.G.). **2,000 c.c.:** Mme. Dubois (Citroën). **Over 2,000 c.c.:** Miss Betty Haig (Healey).

SPORTS



NEWS

SWEDISH SPORTS-CAR RACE

THE Swedish race meeting near Helsingland on 9th March was ambitiously listed in the International Calendar as being for Formula 1, 2, 3 and Sports-Cars; in actual fact it turned out to be solely for sports-cars and production-based "specials".

The meeting was run in fine weather, over the frozen lake Varpen, 10,000 spectators attending. Only one foreign driver, S. Vogel, of Austria, with a Wanderer, took part. Two Finnish-entered Allards could not start for lack of vital spares.

The under 1,500 c.c. event drew examples of M.G., Jupiter, Volvo and Peugeot, and the winner proved to be R. Berg (M.G.) $\frac{1}{2}$ minute ahead of a Peugeot and an H.R.G.

* * *

THE LUXEMBOURG G.P.

As at 13th March, the following entries have been accepted for the *grande épreuve* of the Formula 3 world, the Grand Prix of Luxembourg on 22nd May: Stirling Moss (Kieft-Norton), Peter Collins (J.B.S.-Norton), Alan Brown (Cooper-Norton), Eric Brandon (Cooper-Norton), Les Leston (J.B.S.-Norton Special), Sir Francis Samuelson (Cooper), Austen May (Cooper), Walter Komossa (Scampolo), Helmut Glockner (D.B.), Adolf Lang (Cooper) and Ninian Sanderson (Cooper-Norton).

* * *

THE TOUR OF SICILY

PAOLO MARZOTTO'S victory with a 2-litre Ferrari in the 670-mile sports-car race around the Sicilian coastline, was lucky but praiseworthy. When others, including Villorosi, ran off the road, he kept going, in hazardous conditions, to the end. Marzotto's brother Vittorio, who won last year, retired early with tank trouble; Taruffi

(Ferrari) retired with engine malaises at Messina when holding a 10-minute lead, but even less fortunate was Giovanni Bracco, who held first place until the 10th hour when his 2-litre Ferrari gave out.

Results were as follows:

General Classification: 1, P. Marzotto (2-litre Ferrari), 670.5 miles in 11 hrs. 23 mins. 26 secs. (58.4 m.p.h.); 2, F. Bonetto (2-litre Lancia), 11 hrs. 28 mins. 28 secs.; 3, G. Valenzano (Lancia), 11 hrs. 28 mins. 39 secs.; 4, S. Amendola (Lancia), 11 hrs. 28 mins. 54.4 secs.; 5, E. Castellotti (2.6-litre Ferrari); 6, Bordoni (2-litre Ferrari); 7, Mancini (2.6-litre Ferrari); 8, Fagioli (2-litre Lancia); 9, Cortese (1.9-litre Alfa Romeo); 10, Ancelmi (2-litre Lancia).

Class Winners, Sports-Cars, Up to 750 c.c.: 1, A. Vici (Lancia). **Up to 1,100 c.c.:** 1, L. Piotti (Osca). **Up to 2,000 c.c.:** 1, P. Marzotto (Ferrari). **Over 2,000 c.c.:** 1, E. Castellotti.

Class Winners, Grand Touring Cars, Up to 1,500 c.c.: 1, G. Musitello (Cisitalia). **Over 1,500 c.c.:** 1, F. Bonetto (Lancia).

Class Winners (National) Touring Cars, Up to 750 c.c.: 1, C. Siciliani (Fiat). **Up to 1,100 c.c.:** 1, P. Tacci (Fiat). **Up to 1,500 c.c.:** 1, G. Frangiamone (Fiat). **Over 1,500 c.c.:** 1, L. Belucci (Lancia).

* * *

JOWETT "AIN'T" WHAT
McCAHILL SAID IT WAS!

By Dick Hayward

(From *Motor Sports World*, U.S.A.)

GATHER 'round ye disciples of Uncle Tom McCahill and his pooch, for I am about to debunk the debunker who fancies, in his own way, that he is a judge of the cornering in the automobile. I will not dwell on the Aston Martin debacle (tsk, tsk, Tom) but will plunge right into the matter of Jowett Jupiter.

Seldom have I read a more unjust evaluation of the handling behaviour of an automobile. What do you consider the prime requisite to be when cornering? Apparently three bushel baskets of dirt heading in

the general direction of a camera lens is better than just two. Hence, the Nash Healey, being heavier, and having bigger, softer tyres, can probably out-corner the Jupiter.

The real reason for these comments, is to forewarn prospective buyers not to take Tom's observations on this car seriously as I did for a short while. I recently had occasion to go shopping for a car a bit more commodious than my M.G. TD and, remembering the comments on the Jupiter, totally ignored the wonderful little machine until enticed into it by Newt Small, an extremely enthusiastic salesman. Being a true McCahill fan, I couldn't believe what was actually happening. This little beauty was not only cornering superbly, but was recovering straight as an arrow out of four-wheel slides, hands off! Naturally, this Nuvolari at the wheel must have had some Houdini gimmick up his sleeve. Up to this point I was still a McCahill believer. When I intimated some sort of trickery, this fellow jumped out of the car, turned his coat inside out, and invited me to try some of the same stuff.

I hastily examined my insurance papers (I always carry them, for I live dangerously), found them in order, and settled myself behind the wheel. One hour and 37 signatures later I was the proud owner of a Jowett Jupiter. The car is now fairly well broken in, and to date I have competed in a rally and a gymkhana. She is all I expected and more. She has better manners than anything I have driven and that includes a couple of Tom's Top Ten.

So Tom and the canine and I are quits until they drop around to Manhattan Beach, Calif., sometime and go "a motoring" with me in the Jupiter—after which I'll gladly serve up a dish of crow for them—the hound will probably enjoy it most.

[The foregoing refers to a road test report by Tom McCahill in *Mechanix Illustrated*, U.S.A.—Ed.]

FRAZER-NASH VICTORY AT SEBRING

Harry Grey and Larry Kulok Successful in American International 12-Hours Race—Jaguars 2nd & 5th—D.B. Wins Index of Performance

BRITISH driver Harry Grey and the American Larry Kulok, in a Frazer-Nash, won the big 12-Hours Sports-car race on the Sebring airfield circuit by 25 miles from the runners-up, Scott and Carroll (XK 120 Jaguar). René Bonnet's little 750 c.c. D.B.-Panhard fell victim to electrical trouble, but he and his U.S.A. distributor Cook, took over the Morehouse/Lansing D.B., to finish sixth, and win the Index of Performance category.

A torrential rainstorm caused the start of the race to be put back an hour. The new Cunninghams were, unfortunately, non-starters as was Goldschmidt's Chrysler - engined Allard.

Bill Spear's white and blue 4.1-litre Ferrari led the field of 31 cars for four hours, then was retired at the pits with a fractured oil pump drive. Grey's Frazer-Nash thereupon jumped into the lead, and stayed there to the end. The 2-litre car was ideally suited to the tricky circuit, and won rather easily at

63.20 m.p.h., having covered just over 758 miles in the 12 hours.

British cars did exceptionally well, for an XK 120 Jaguar was runner-up (tying with a Siata-Fiat), and another fifth, a Morgan was eighth, whilst M.G.s were sixth, ninth, and 11th—a grand advertisement for the sports-cars of this country!

RESULTS

General Classification

1, Harry Grey/Larry Kulok (Frazer-Nash), 758.45 miles (63.20 m.p.h.); 2, Scott/Carroll (3,442 Jaguar), and Irish/Fergus (Siata-Fiat), 732.25 miles (61.02 m.p.h.)—tie; 4, O'Brien/Kennedy (Ferrari), 721.0 miles (60.08 m.p.h.); 5, Wallace/Yates (3,442 Jaguar), 711.25 miles (59.27 m.p.h.); 6, Ash/Van Dris (TD M.G.), Bonnet/Cook (745 D.B.), 706.10 miles (58.82 m.p.h.)—tie; 8, Wilder (2,000 Morgan), 685 miles (57.09 m.p.h.); 9, Pearsall/Hansgen (TD M.G.), 672.7 miles (56.05 m.p.h.); 10, Brundage/Brundage (Volkswagen); 11, O'Hara/Allen (M.G.); 12, Morehouse/Lansing (D.B.); 13, Ving/Gifford (Morris).

Index of Performance

1, Bonnet/Cook (745 D.B.); 2, Grey/Kulok (1,971 Frazer-Nash).

B.R.M. AT MONZA

STRINGENT tests are being carried out at Monza on the modified B.R.M.s. Chief test-driver is Stirling Moss, who will be joined shortly by Ken Wharton, the 1951 British Hill-Climb Champion, who tried out a car recently at Folkingham. Fangio is expected to arrive early next month and may go straight to Monza. Two B.R.M.s have been entered for the Grand Prix of Valentino on 6th April at Turin. Drivers will be Moss, and either Fangio or Wharton, depending on whether or not the Argentinian is satisfied with the car.

THE "SPORTS" RENAULT

THE S.A.T.E.C.M.O. Renault, described in last week's issue, is not produced by Regie Renault. The last-named produce the "1063" sports-model, which has a 4-speed gearbox and French carburetter. Parts will shortly be available through S.A.P.R.A.R. (Société Anonyme pour les Accessoires Renault), a branch of Renault, as a conversion kit.

THE LYONS-CHARBONNIÈRES RALLY

Stirling Moss (Jaguar) only British Entrant

A LARGE entry has been received by the A.C. du Rhône for the arduous Lyons-Charbonnières Rally which starts on 28th March, and finishes on 30th March. Sole British competitors are Stirling Moss/Gregor Grant (XK 120 Jaguar coupé), who are starting from Nice. The route from the various starting points covers over 2,000 kilometres, much of which is in the mountainous regions of France, and, apart from a short section on the last day at 40 k.p.h. minimum, the average speed is set at 60 k.p.h.

BUENOS AIRES G.P.

(9th March) Confirmed Results

1, J. M. Fangio (Ferrari), 87.6 miles in 1 hr. 17 mins. 19.2 secs. (68.05 m.p.h.); 2, J. F. Gonzalez (Ferrari), 1 hr. 17 mins. 19.4 secs.; 3, F. Landi (Ferrari), 1 hr. 19 mins. 16.5 secs.; 4, Daponte (Maserati); 5, Cantoni (Maserati); 6, Menditeguy (Alfa Romeo); 7, Iventes (Maserati); 8, Niemitz (Alfa Romeo); 9, Abrunhosa (Ferrari).

Simon and Manzon (supercharged Simcas) both retired.

FERRARI BENEFIT AT SYRACUSE

Works "Fours" Score 1-2-3—Villoresi Laps at 91.35 m.p.h.—Ascari Wins

ALBERTO ASCARI (4-cylinder Ferrari) won last Sunday's Syracuse Formula 2 G.P. by nearly a minute from Piero Taruffi (4-cylinder Ferrari), Giuseppe Farina (4-cylinder Ferrari) was third. "Gigi" Villoresi, in the remaining works "four," was dogged by fuel feed trouble, and gave up after 53 laps. However, he put in a lap at 91.35 m.p.h.—a remarkable speed for a Formula 2 machine.

Hans Stuck in the V-8 A.F.M. blew up after four laps. Peter Whitehead drove a steady race with his V-12 Ferrari, to finish a minute behind the fourth man, Rudolph Fischer (Ferrari). Louis Chiron (Platé Maserati) received burns on his arm and shoulder when his car caught fire after leaving the road during practice.

General impressions of the opening G.P. event are that the latest 4-cylinder Ferraris possess remarkable speed and acceleration, together with exceptional road-holding. They will be extremely difficult to beat in Formula 2.

RESULTS

Syracuse G.P. (Formula 2)

1, Alberto Ascari (4-cylinder 1,980 Ferrari), 60 laps, 2 hrs. 16 mins. 24.6 secs. (89.05 m.p.h.); 2, Piero Taruffi (4-cylinder Ferrari), 2 hrs. 17 mins. 23.2 secs.; 3, Giuseppe Farina (4-cylinder Ferrari), 2 hrs. 17 mins. 50.4 secs.; 4, Rudolph Fischer (Ferrari), 58 laps; 5, Peter Whitehead (Ferrari), 58 laps; 6, Comotti (Ferrari), 58 laps; 7, Luigi Villoresi (Ferrari), 53 laps.

Fastest Lap: Villoresi, 91.35 m.p.h.

GOODWOOD ADMISSION PRICES REDUCED

FOLLOWING the Entertainment Tax adjustment announced in the Budget, the British Automobile Racing Club has reduced the scale of admission charges to the Goodwood Motor Racing Circuit throughout. These reductions become effective for the opening International Meeting of the season on Easter Monday, 14th April. The revised charges, including tax, are:—

Public Enclosure, 6s. 0d.; Children, 3s. 0d.

Public Grandstands, 27s. 0d.; Children, 24s. (includes admission to Public Enclosures).

Transfer to Paddock, 20s. 0d.

IN SUPPORT OF THE TWO-STROKE

By

PHILIP H. SMITH,

A.M.I.Mech.E.

IN the columns of AUTOSPORT recently, there appeared some comments regarding the two-stroke engine, which, to put it mildly, did less than justice to a very promising type of power unit. That the two-stroke has inherent limitations is obvious both from a study of the working cycle and the actual performance of the type on the road. It is not altogether clear why people who condemn two-strokes seem blind to the comparable limitations of the four-stroke cycle. Fortunately the roads today bear witness to the reliability and speed of small two-stroke engines, in the hands of novices to whom such pastimes as cleaning plugs and blowing through jets at the roadside, are a closed book.

There is, of course, nothing wrong with the four-stroke cycle when it comes to converting fuel energy into power, and multiplication of cylinders overcomes the uneven turning effort inherent in having only about 120 degrees of expansion stroke in 720 (in each cylinder). The fact remains that many engineers have felt from the earliest days that fundamentally, a power impulse at every down-stroke is mechanically correct, and should lead to very much smoother running, not only because of the increased number of power strokes, but also on account of the less violent fluctuations in bearing loading and inertia stresses.

Volumetric Efficiency

As every down-stroke is a working stroke in the two-stroke, it is necessary to introduce and exhaust the charge during about 120 degrees of crank movement over b.d.c. Apart altogether from the very short period available for this operation, it will be evident that the fresh charge must be pre-compressed in a separate chamber, ready to enter the working cylinder at the same time as the exhaust is leaving. Thus, although one up-and-down stroke of the piston devoted to charging and exhausting has been done away with, and a power stroke substituted, each charge has now to be compressed twice to obtain one power stroke; once before entering the cylinder, and secondly, on the normal cylinder compression stroke.

This excess of pumping work naturally lowers the volumetric efficiency of the engine. Further, because of the short time available for charging, the pump pressure must be adequately high. In fact, to obtain m.e.p. figures comparable with four-strokes it is necessary to use such high pumping pressures that excessive fuel consumption outweighs any advantage gained in the way of power increase. It will be realized that whatever type of pump is used, whether this is combined with the engine crankcase, or is a piston pump, or rotary blower, the snag is inescapable.

It will, however, be evident that if efforts are concentrated not in obtaining ultra-high power outputs, but in making the most of the two-stroke's outstanding virtue, which is smoothness of operation, we can obtain a power output equal to that of a four-stroke at equivalent r.p.m. with only *half* the m.e.p. This lower pressure occurring twice as often as in the four-stroke, means a bigger heat loss and lower thermal efficiency, but none of these drawbacks are serious, and modern two-strokes are definitely not the "petrol-drinkers" of a bygone era. This comment only applies, however, when cylinder pressures are kept relatively low. As soon as attempts are made to modify a two-stroke for power outputs of the super-sports variety, fuel consumption increases out of all proportion. In any case, high-output two-strokes demand separate charging pumps and some form of valve-gear or dual-piston layout to cut down leakage (through the exhaust) of the incoming charge, to the minimum. It is the writer's firm conviction that once the simplicity of the commercial crankcase-scavenged two-stroke is departed from, one might just as well go on to the four-stroke cycle as offering infinitely greater

possibilities in the way of phenomenal power outputs.

Successful Two-Stroke Engines

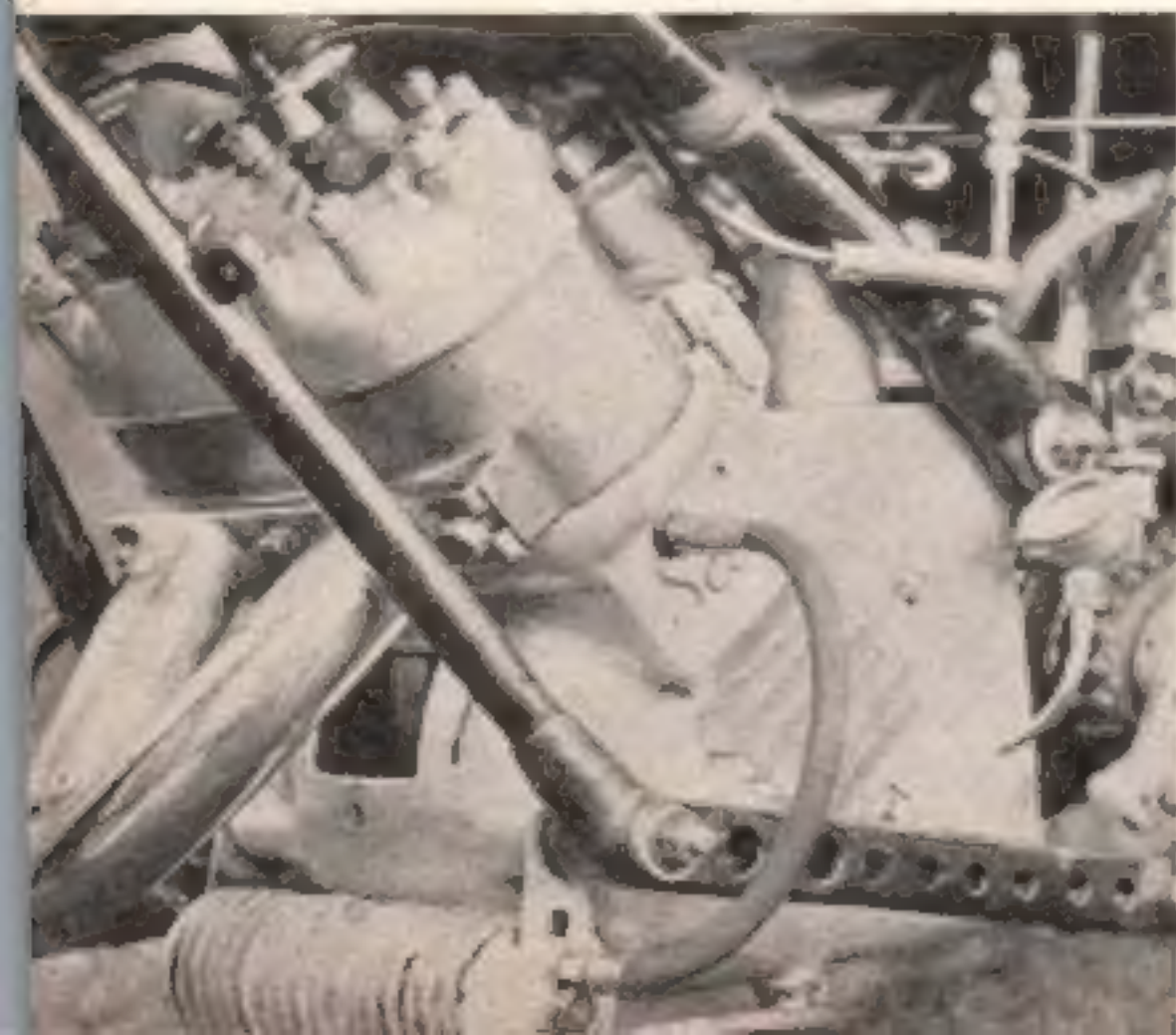
In Germany, the DKW concern has probably done more work on two-stroke development than any other in the car-manufacturing world, and most successful engines of the type owe some feature of design to DKW. The endearing features of the multi-cylinder two-stroke are its uncanny mechanical silence due to the absence of any form of valve-gear, the turbine-like flow of power which is the result of moderate pressures and continuity of power impulses, and the tenacity with which the engine will "hang on" when pulling at low speeds. These are virtues which it is impossible to obtain with four-stroke operation.

With crankcase-scavenging, it is, of course, impossible to use the normal system of sump and full-pressure lubrication, as all oil fed to the engine must be carefully rationed to avoid mixture fouling. Metering-pump oiling systems, whilst satisfactory at high speeds, do not lend themselves to engines operating under normal combined traffic and open road conditions. In spite of its drawbacks, the "petrol" system of mixing lubricant with the fuel in the right proportion, has swept the board for present-day engines. Actually, there is nothing very appalling in the "petrol" system. There are plenty of designs of fuel tank which allows the oil to be poured straight in after a fill-up of petrol without the old trouble of pipes and jets being blocked with an excess of oil. As for its efficiency in looking after the engine's needs, the long life between rebore of two-strokes is a byword. This is due to the fact that from the first movement of the crankshaft the cylinder and piston are subjected to a deposit of oil carried in by the incoming fuel charge. Ball and roller bearings, lightly loaded, are well served by "petrol", and remain inaudible for astronomical periods of operation.

Power Output with Simplicity

As regards power outputs, anything from 30 to 40 b.h.p. per litre is obtainable without introducing such drawbacks as excessive fuel consumption, poor slow-running, or lubrication troubles. Such an output is, of course, well up to present-day four-stroke standards for popular touring-type engines. Further, the power is developed at an engine speed of perhaps 85 per cent. of that of the four-stroke, while in a four-cylinder engine, instead of a multiplicity of little bits bobbing up and down, the number of moving parts performing equivalent duties would be NINE.

The well-known 197 c.c. Villiers unit which is so popular today, develops a little over 8 b.h.p. at 4,000 r.p.m., so that it is obviously not out of order to visualize a four-cylinder 800 c.c. two-stroke of 30 b.h.p.—precisely the output of the new Austin of similar capacity! Those fortunate enough to sample the prototype Scott three-cylinder unit made by the famous Yorkshire motor-cycle firm just before the war, were most impressed by its uncanny mechanical silence, the unburstable feeling when flogging it in the intermediate gears,



★
TWIN TWO-STROKE: A much modified Scott 500 c.c. twin two-stroke motor-cycle unit prepared by the author for a recent Manx Grand Prix.
★

In Support of the Two-Stroke—Cont.
and the smooth and rapid build-up of revs. This engine was of 1,108 c.c., each of the three cylinders measuring 78 by 78 mm., and the main crankcase was subdivided into three separate pumping chambers to provide the scavenge.

Developing 42 b.h.p. at 4,000 r.p.m., the unit was mounted at various times in Morgan 4/4 and M.G. chassis. It was hardly of the "everyman" type, as it embodied porting, compression ratios, and other details similar to the high-performance Scott twin-cylinder motor-cycle engines. In such guise it would, no doubt, be an expensive job, but if redesigned on a quantity production basis, a similar engine could be pro-

duced more cheaply than an equivalent four-stroke. The main disadvantage, of irregular firing on the over-run can be mitigated by close attention to the silencing system, but in any case with a multi-cylinder engine this trait need never become objectionable. Modern technique has shown conclusively that, although it demands an intelligent approach, there is nothing outrageously difficult about designing a silencing system for this type of engine which is efficient on all counts.

It is evident, then, that the outstanding virtues of the simple crankcase-scavenged multi-cylinder two-stroke are its extreme smoothness of power output, mechanical silence, and ease of main-

tenance due to lack of valves and auxiliary mechanism. These factors have been appreciated abroad for some 20 years. Information regarding two-stroke research carried out by our erstwhile enemies has been made freely available to our manufacturers, and it would be pleasant to anticipate that a future British small car would appear with this simple and likeable form of power unit. Obviously, much courage is needed to launch an unorthodox type on the notoriously conservative British market, but if such a design were "right" from the start, the public might well wonder why they had not been delivered from the "buzz-box" small four-stroke long ago.

SCOTCH CORNER By "AENEAS"

CHARTERHALL TO REPLACE WINFIELD—HIGHLAND
"THREE-DAYS"—MAKING RACING PAY ITS WAY

AFTER the October meeting there were some complaints floating around concerning the surface of the Winfield circuit. Naturally Secretary Martin and his Joint Committee made up their minds that they would have to do something about it. Sundry gentlemen with tar boilers and steam rollers were consulted and the Winfield Joint Committee discovered that putting the track in order was going to cost them an awful lot of pennies. However, having been granted an International permit, there was nothing to do but dig deeply into their sporrans and get things smoothed out. Then came a bolt from the blue—they could fix the track if they liked but there was no guarantee of tenancy.

No dice. The Winfield lads set out to look for another circuit. They found one not very far away from Winfield, at a spot called Charterhall. The circuit is still in Berwickshire and will be a better one than Winfield. The surface is good, there are two fine bends that look as if they had been planned for motor-racing and the layout is such that spectators will have a completely uninterrupted view. There will be no trouble about getting their closed permit for the meeting on 5th April, and we are all keeping our fingers crossed for that International permit later in the season.

THE first National event on our Scottish programme is the S.S.C.C.'s "Highland Three Days" on 12th to 14th April. I have the regs in front of me and here, surely, is evidence of the changing conditions in Scottish motor sport. In the brave days this event was known as the Highland Two Days Trial and at the end of these two days the competitors were certain of one thing—Scotland was indeed the land of the mountain and the flood. In post-war years the event was extended to one of three days' duration.

Nowadays the S.S.C.C.—or any other Scottish club—would be tilting at windmills if they were to attempt a trial of three days' duration. They would, I imagine, get about five entries unless a band of real stalwarts from the deep South were to espouse the cause for the sake of breaking new ground and sampling our Scottish hills.

That, I suppose, is very unlikely, so the

Scottish Sporting Car Club event is to be known as the Highland Three Days Rally. The 460-mile course will cover main and secondary roads and there will be a fair number of well-thought-out driving tests. Gleneagles Hotel will be the forgoing spot on two nights, and very reasonable terms have been arranged. It is to be hoped that a fair number of you Southern gentlemen will come up and sample this major occasion—you are assured of a good sporting rally and of excellent companionship.

CERTAINLY Scotland does its bit to support events like the R.A.C. Rally, and 17 of our clubmen are going south in search of booty and sport. What pleases me about this is the fact that besides such regular competitors as A. McCracken (Ford) and Jack Wilson in his Austin we have new and successful competitors like Jack Haily and G. P. Denham Cooke, who, with their Jaguars, have been appearing in our Scottish awards lists, and also young enthusiasts like Ken Fraser in his Healey.

MOTOR-RACING is dangerous—that we know. Motor-racing is expensive—that is something that every competitor is particularly conscious of, and the Budget hasn't made him any the less so. This is particularly the case when the *grandes épreuves* beckon and the classic sports-car races are within your reach. Ian Stewart makes no bones about it. This year his racing must pay its way or, next year, there will be a name missing in the lists of competitors.

He will have to do a lot of winning, for Ian's motor-racing is getting to cost more than coppers. A farmer, who does everything from driving a tractor to spreading muck and cleaning out byres, Ian has a rooted objection to getting his hands oily and greasy. That's not so very odd, you know—farm dirt is clean dirt, but it means the services of a mechanic and the expert touch of people like Wilkie Wilkinson.

These services have to be paid for and, in addition, some time this year Ian hopes to get possession of a "C"-type instead of his present XK 120 Jaguar. There are all the various expenses of

getting to and from the circuits, and these, together with the upkeep and maintenance of a van and the competition vehicle itself, have resulted in the fact that—although 22-year-old Ian's father is a wealthy man he is also a business man—the Stewart racing must clear its expenses or next year it will be Ian Stewart, farmer who drives a tractor and a farm van occasionally, instead of Ian Stewart, racing driver who also farms.

IN Edinburgh's Waverley Market they are having a Festival of Sport. Amidst all the welter of football personalities and publicity tending to dwarf all our other Scottish sporting activities I am glad to say that there is an excellent stand devoted to motor sport. Staffed by officials and competitors from our Scottish clubs there are first-class displays of photographs of circuit racing, hill-climbs, trials and personalities and a series of good posters that remind spectators of dates and events to watch for in the coming season.

Club officials and competitors are there to be talked to and provide information about the various aspects of the sport, and there are film shows that range from the friendly little reels about club events to the large-scale efforts that we have all seen and enjoyed this winter. I am all for this kind of thing as I feel that a great many members of the public don't know enough about motor sport and, given publicity, I think a great many more average car owners would come forward to share and enjoy club activities.

HIS many friends will be sorry to hear of the illness of that likeable personality J. L. H. R. Miller. Supposedly suffering from lumbago it is now suspected that John has a misplaced spinal disc which may result in him having to lie up for quite a time. We all hope that this will not prove to be the case as an M.G. "do" without John's presence just doesn't seem right.

B.A.R.C. (YORKSHIRE CENTRE)

REGULATIONS are out for the Night Rally, to be staged by the B.A.R.C. (Yorkshire Centre), on 29th March, starting and finishing near Leeds. The route will be over 140-160 miles of main, secondary and minor roads, with no "colonial" sections. Entries (10s.) should be forwarded to M. S. Wilson, Silver Royd House, Leeds, to reach him by first post on 27th March.



FIVE-HUNDREDS OFF: Start of the 500 c.c. Championship at Newtownards. Headland (Kieft), McCandless (Cooper) and Reece (Cooper) occupy the front row.

ULSTER RACING SEASON OPENS

**Many Retirements in Half-Litre Race—Succession of Wins for the Scott Ford
—Joe Kelly (Alta) Takes Open Scratch Event and Sets Fastest Lap of Day**

by

WILSON McCOMB

THE 500 c.c. Motor Racing Club of Ireland's meeting at Ards airfield, Co. Down, the first event of the Irish racing season, attracted a total of 47 entries last Saturday for a varied programme of scratch and handicap races. Under a cloudless sky, the largest number of spectators yet recorded at the airfield saw Charles Headland, of Birmingham (Kieft-Norton), run away with the 500 c.c. Championship of Ireland on the new anti-clockwise circuit—a map of which appeared in last week's issue. The open handicap race was dominated by Robin Scott, making a welcome return to the sport with his amazing single-seater Ford Special, and Joe Kelly, of Dublin, set a steaming pace in the open scratch event to win at 71.70 m.p.h., his fastest lap of 1 min. 5 secs. being 12 secs. faster than the record for the old course. Kelly's Alta was fitted with Weber carburettors.

Saloon Handicap

This ever-popular curtain-raiser, over five laps of the 1 mile 613 yds. course, was won by one of the two limit men.

L. Coffey in a Prefect-engined Ford Anglia, with an allowance of 1 lap and 15 secs. The scratch men, W. R. Baird (Mark V Jaguar) and Redmond Gallagher (Healey Coupé), had no hope of catching up, but Henry Kyle, displaying beautiful judgment, drove his 24-litre Riley into second place from the 25-sec. mark at 54.05 m.p.h. Spence Piggot (Hillman Minx Coupé) came home a steady third, and fourth place fell to the only lady entrant, Miss Frances Glenny in a Ford Prefect.

500 c.c. Championship

The seven starters for the 15-lap championship event comprised five English and two local drivers, all but three of whom had retired by the 12th lap. From the fall of the flag, Headland put his double-knocker Norton-engined Kieft out in front, with Jack Reece's Cooper-Norton holding a comfortable second, followed by Don Beauman (Cooper-J.A.P.). Despite a nasty slither on the right-hander into the perimeter track, Headland held and increased his lead, while Belfastman Cromie McCandless, in the ex-Brandon Number 2 Cooper, pulled into third place, followed by H. L. Williams' Emeryson. Norman Stock's Marwyn-based "Alpha" threw a chain on the fifth lap, and McCandless started to press Reece hard for second place. Then the Liverpool man's gearbox split wide open, making it Headland, McCandless, Williams—and out went the Emeryson.

REWARD: Mrs. W. R. Baird presents the Championship Trophy to Charles Headland. Behind are Donald Beauman, second, and A. J. Nurse, third.

with a faulty fuel pump! A. J. Nurse, who had been having a quiet battle further back with Beauman's similar car, now lay third, and so wide was the gap between the first three that there seemed little likelihood of a change in the positions. But the death-roll was not yet complete, for McCandless dropped a valve on the 12th lap, leaving three lonely five hundreds, of which the Kieft sat way ahead, its reverse-cambered rear wheels glued to the track. In the last couple of laps Beauman, a comparative newcomer to Formula 3, took exception to his hindmost position, and slipped past the other Cooper into second place.

Open Handicap

Heat 1.—With a replacement pump installed, H. L. Williams (Emeryson) drove a dashing race to win the first of the four five-lap heats in the handicap event, with only a 30-sec. advantage on Joe Kelly's G.P. Alta, which tarried but little to take second position. Ronnie Jennings' ex-Durbidge M.G. Special and Fleming's Morris-cum-M.G.-cum-Ford both fell a-spluttering, while Durbidge's Mercury-engined "Newpark" came home third, followed by Noel Hillis' 6C Maserati.

Heat 2.—After being forcibly fitted with a crash-hat, Robin Scott (Ford Spl.) wiped out the 10 secs. between himself and L. Moore (TC M.G.) on the first lap, and the little Ford (I still say 7,000 r.p.m.!) stayed right in the lead. On the third lap Nurse (Cooper) passed Headland's Kieft, which was misfiring, but made a sudden recovery, and shot past Nurse, Leeper (M.G. Spl.) and Moore. Leeper just managed to stave off Nurse at the finishing line, and the order was Scott, Porter (Plus-Four Morgan), Headland and Leeper.

Heat 3.—With Wilkinson's ex-Shawe-Taylor E.R.A. suffering last-minute gearbox troubles, Reece's Cooper having a past-tense gearbox, and Miss Glenny's M.G. devoid of anchors, only five starters appeared for this heat. Then





AUTOSPORT, MARCH 21, 1952

LINE-UP: Drivers awaiting the flag in the first semi-final of the open handicap are Kelly (Alta), Scott (Ford), Porter (Morgan), Hillis (Maserati) and Durbidge (Newpark).

immediately took the lead, followed by Billy Leeper's TC Special. Gallagher's "Leprechaun" retired once more on the second lap, while Baird passed Leeper, but with half his cylinders deep in slumber. The "Griffin" failed to pick up, and could not catch the little Emeryson, which had never sounded better, while Lovell-Butt's K3 also went past Leeper on the fourth lap.

Final.—Baird was having no messing about this time, and went straight into the lead, followed by Kelly, Scott, Lovell-Butt, Durbidge and Hillis. Toe to the boards, Hillis had the Maserati in third place by the end of the second lap, followed by Lovell-Butt and Williams, but Scott's Ford had wearily dropped behind Durbidge. By the fourth lap Leeper had also passed him, and now the determined Williams was fourth behind the Maserati. Then Baird's motor again began to misfire, and on the sixth lap he found himself behind Kelly, there to remain until the 10 laps were completed.

RESULTS

Saloon Handicap: 1, L. Coffey (Ford 1,172 c.c.), recd. 1 lap 15 secs., 44.81 m.p.h. 2, D. H. Kyle (Riley 2,443 c.c.), recd. 25 secs., 54.05 m.p.h. 3, J. S. Piggot (Hillman 1,265 c.c.), recd. 1 min. 20 secs., 47.40 m.p.h.

500 c.c. Championship of Ireland: 1, C. D. Headland (Kieft-Norton), 66.61 m.p.h. 2, D. B. Beauman (Cooper-J.A.P.), 63.86 m.p.h. 3, A. J. Nurse (Cooper-J.A.P.), 63.64 m.p.h.

Open Handicap: 1, A. R. Scott (Ford 1,172 c.c.), recd. 1 lap 70 secs., 60.01 m.p.h. 2, J. B. McCay (Ford 1,172 c.c.), recd. 1 lap 70 secs., 58.95 m.p.h. 3, C. S. Porter (Morgan 2,088 c.c.), recd. 1 lap 70 secs., 58.46 m.p.h.

Open Scratch: 1, J. Kelly (Alta 1,500 c.c. S/c.), 71.70 m.p.h. 2, W. R. Baird (Griffin 1,489 c.c. S/c.), 67.32 m.p.h. 3, N. Hillis (Maserati 1,500 c.c. S/c.), 67.27 m.p.h.

Fastest Lap of the Day: J. Kelly (Alta), 1 min. 5 secs., 74.675 m.p.h.

Ulster Racing Season Opens—continued

Arthur Clapham, whose Kieft-suspension Ford had had magneto worries in practice, dropped out halfway, as did Redmond Gallagher with the 1,000 c.c. J.A.P.-engined "Leprechaun". Wilbert Todd gaily held the lead in his A40-engined trials special, until passed on the fourth lap by the ex-Graham K3, nicely handled by Dick Lovell-Butt, and Wilfred Haughton rolled home third at the wheel of an 8 h.p. Ford Special.

Heat 4.—After a late getaway, W. R. Baird drove his twin-blown "Griffin" (4CLT Maserati engine in tubular chassis) furiously from the scratch mark, but despite a 1 min. 6 secs. lap could not better fifth place. On a 65-sec. allowance, Dr. W. D. Johnston handled his Jaguar S.S. 100 beautifully in his first race, quickly taking the lead and holding it to the end. Jimmy McCay and Eugene Barker had an enjoyable tussle in their Fords, coming in second and third, and W. Park's unblown Dellow showed an impressive turn of speed to bring him into fourth place.

First Semi-Final.—Scott and Porter repeated their steady one-two act in the first of the two five-lap semi-finals, but Headland, having made his departure for the Liverpool boat, did not take part. Noel Hillis chased Durbidge for third place, but danger loomed behind in the shape of the scorching Kelly, who swept past the pair of them just as the chequered flag fell.

Second Semi-Final.—On the signal, the two Fords of McCay and Barker shot down the straight wheel to wheel. McCay was first round the hairpin, and proceeded to eat up Todd, Haughton and Park to take the lead, while Barker retired with a shortage of white metal. Dr. Johnston began a determined assault on Park for second place, but almost spun at the hairpin, and after McCay crossed the line for the last time, Park, Johnston and Lovell-Butt came through nose to tail.

Final.—In the 10-lap final, Scott again got in front and stayed there, to

score his third win of the day. McCay, after a lively tussle with Park, took second place, and on the fifth lap Porter also passed him. The disgusted Park swerved wide as yet another—Johnston in the S.S. 100—came by, and soon he had lost even fifth place, this time to Kelly, whose G.P. Alta sounded in tip-top condition. But Scott, McCay and Porter were strictly on rails, and in that order the race ended—a grand comeback for Robin Scott and the famous Ford.

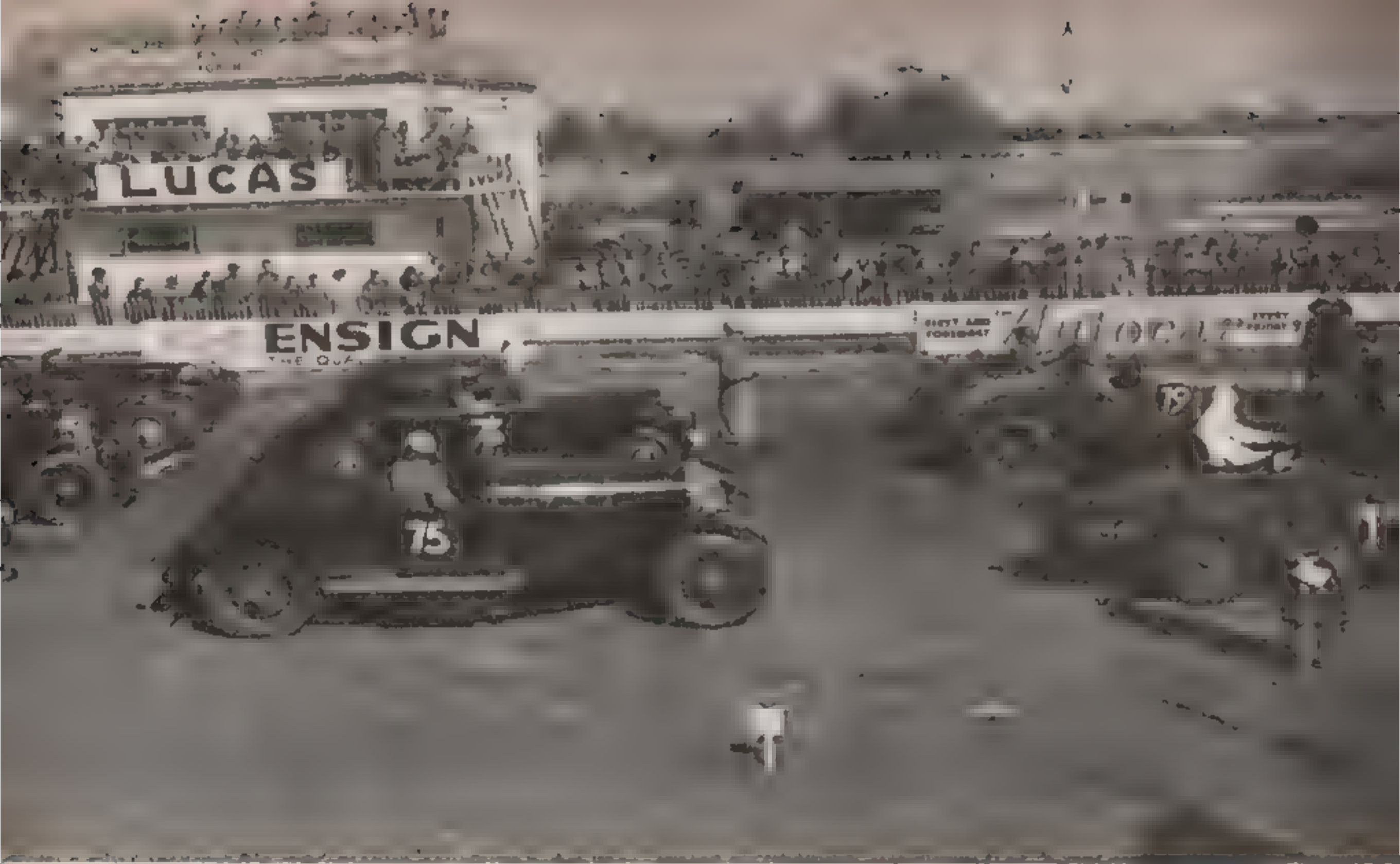
Open Scratch

Heat 1.—Still untired by a busy afternoon, the Scott Ford was actually first away at the start of the first five-lap heat in the open scratch race, but Hillis' Maserati was in the lead at the hairpin. Then Kelly got steam up, and went into first place before the end of the opening lap. Thus the order remained, with Durbidge's "Newpark" and Moore's TC behind. By the fourth lap, Kelly had put the entire length of the runway between himself and the Maserati, and at the finish had lapped the TC.

Heat 2.—This seemed a certainty for Bobbie Baird, but strange things do happen in racing. Again the "Griffin" mis-started, while Williams' Emeryson



FLYING RILEY: Henry Kyle, second in the Saloon Handicap, heads for the perimeter.



BETTER HANDICAPPING

THE FORMIDABLE TASK OF THE HANDICAPPER — AND HOW IT COULD BE EASED

THE *Shorter Oxford Dictionary* defines a handicap race as "a horse-race in which an umpire (the handicapper) decrees what weights require to be carried by the various horses entered, according to his judgment of their merits, in order to equalize their chances." Doubtless some historian will write to correct me, but I do not know of an instance of the exact application of this method to the handicapping of those horses which drive the horseless carriage; however, the Dictionary gets nearer to our field when it goes on to state that a handicap is "the extra weight or other condition imposed in equalizing the chances."

Those of us whose interest lies mainly in sports-car racing — if only because our opportunity of driving a Grand Prix car is nil and of watching Grand Prix racing limited to a very few events each season — are greatly dependent upon the handicapper for the protracted struggles and close finishes which

by

Barclay Inglis

are the essence of good races. Numerous as the various club race meetings are, they could not possibly cater for all would-be entrants and still yield good sport if they were run exclusively from scratch, and much—perhaps most—of the year's club racing is, therefore, on a handicap basis. Well, let's face it: nine times out of ten (or, if you think that's too harsh, let's say "too many times out of ten") the handicapping is poor, and one far more often sees the winner romping home by minutes than those near dead heats which accurate handicapping might yield. Just occasionally (it would be invidious to quote instances either way) one leaves a meeting with the thought that the handicapping has been excellent, but

much more frequently the kindest thing is to refrain from comment. Perhaps this season will be completely different. Still, before we decide that all handicappers are morons, let us consider what their task entails.

The Dictionary sums it up precisely when it uses the phrase "according to his judgment of their merits", for the handicapper's first step is to form such a judgment. How does he do this? Well, it isn't by any means easy, nor is it as mystical as it may seem. To begin with, being a knowledgeable person, he knows within fairly accurate limits the performance of any make of car in standard trim and the times each might be expected to put up on the various circuits in general use. This knowledge comes from watching every race he can get to, putting his stop-watch on as many cars as possible, and from studying all available results and times the season through, taking into account the condition of the cars and the

Better Handicapping—continued.

extent to which they varied from standard on each occasion. This may seem a lot to expect, but such knowledge is the very basis of proper handicapping. It remains for him to ascertain what modifications have now been carried out and to weigh up their probable effect on performance in relation to the circuit on which the race is to take place. The last point is an important one, as a winding track with no long straights obviously calls for a different range of performance from one with comparatively few corners and one or two lengthy stretches on which to wind up to maximum speed. Similarly, the length of the race is a material factor. I can think of at least one car well known in the competition world which is fairly certain to be placed in a race over eight or 10 miles, but which I should guarantee to have boiled itself dry, at racing speeds, within 30.

Little Data Sought

The question of modifications is the bones of the matter and it always surprises me that so many entry forms ask for so little information on such points. It may be laborious for the entrant to fill in a lengthy questionnaire, but accurate handicapping of every competitor is in the interests of all, and the task of giving full relevant details is amply repaid by the knowledge that one goes to the line with a genuine chance of winning—even if it is in a dead-heat with everyone else. Handicappers are not omniscient and, while they may know that you have altered your axle ratio, they may not yet have learned that Walter Plinge has fitted special heads and a battery of carburettors: so that it works both ways. Many cars are, of course, well known, but despite this, I suggest that in all cases the handicapper should require to be advised of any mod. likely to have an appreciable effect on performance, and that entry forms should ask the five or six questions which would tell him all that he need know. And if you think that this is a lot of fuss about nothing, reflect that Colin Chapman's fantastic Lotus (which has lapped the old Silverstone Club circuit in under two minutes) would appear on the ordinary entry form as powered by a 747 c.c. Austin engine; laugh that one off!

However, results so far ahead of standard are not obtained very often, and the handicapper's experience

should enable him to deal with the "Special" from his knowledge of the power unit employed, the weight and the general potentialities of the chassis. Early in the season there is little or no form to go on, but there are usually parallels to be drawn with other similar cars.

Then there is the factor of the driver, because it is the combination of the car and the person at the wheel which counts. Everyone, of course, is apt to have an "on" day or an "off" day, and even a handicapper cannot be expected to forecast this: but the well-known fact remains that one driver will consistently take the same car round far more quickly than another driver. The human animal is always far harder to assess than any machine and all that the handicapper can do is to form his judgment on past results and his own observations.

Our handicapper has now considered the relevant data, and the next step is to set down his opinions in the form of anticipated lap times, based on the car and driver as he expects them to come to the line, and from these to calculate race times. If, for example, the race is over five laps, a simple multiplication by five will yield a probable race time for each competitor, although in long races, naturally, other factors such as fatigue (of car or man), overheating, excessive tyre wear and so on begin to creep in. Comparison of these expected race times provides the handicaps. Thus, if A is thought capable of completing his five laps in 10 mins. 50 secs., and B in 10 mins. 40 secs., A should be sent off 10 secs. ahead of B; and so on.

Race Day Revision

The handicapper's job is not over, however, when he hands his list of handicaps to the Secretary of the Meeting for printing in the programme. No. 159 of the G.C.R.s envisages his revising handicaps on the basis of a performance made earlier in the same meeting: he will undoubtedly have attended practice and busied himself with stop-

watches, pencil and paper: he may have been present during scrutineering (it is desirable that he should be) and noted a mod. which he thinks will alter performance: or it may be that the day is a really wet one and that some of his expectations, based on a dry track, call for drastic revision under wet conditions. It is at this point that the handicapper may be seen, a wild light in his eyes, crouching by the edge of the track in the driving rain, writing things on little pieces of paper which then blow away; capture one and you will find that it reads "Race No. 3 Revision of Handicap. No. 9 becomes 45 secs., etc., etc. . . ." and then, of course, there is still the starting grid to prepare—but that is another story.

Compile Central Records

I cannot feel that the foregoing is likely to create a perceptible surge of volunteers for the truly difficult and somewhat thankless job of handicapper. But, like most tough propositions, there is a tremendous satisfaction in doing it really thoroughly and well, and I shall end on a note of hope by mentioning a proposal, now under consideration, which, if anything comes of it, will lighten the task of handicappers and help to secure more accurate results. It is the compilation of central records, available to all recognized Clubs, in which will be maintained, week by week, the lap times of every competitor, naming the circuit and the car he was using. This, obviously, could be done only with the fullest co-operation from Club Secretaries, who would have to send in, after each race meeting, all the lap times recorded during that meeting in either scratch or handicap events. To have access to such data would be invaluable to handicappers and of great ultimate benefit to all Clubs and to the sport as a whole. It is possible, of course, that the proposal may (like so many other excellent ideas) come to nothing: but I understand that a very suitable person, in a very suitable position, is willing to undertake the work as a spare-time task. The card index is all ready for the purpose. The rest depends entirely upon the Clubs. If you agree that such information should be available for reference, it is up to you to arrange for the provision of details for recording and to help make the records complete and up-to-the-minute. Letters to AUTOSPORT will be forwarded to the right quarter.



Technical and Otherwise

by John Bolster

THE Z.F. DIFFERENTIAL

It is not generally realized, except by those who have handled fast racing-cars, what an infernal nuisance wheelspin can be. Quite rapid sports-cars may be almost immune from the disease, but as soon as a certain power to weight ratio is exceeded, it rears its ugly head, and is an ever-present problem, even at quite high speeds.

The worst manifestation of this bogy occurs when accelerating away from corners. Here, the inside back wheel is relieved of much of its normal load, due to centrifugal force acting upon the mass of the car. A little too much accelerator pressure will set this wheel spinning, and a smell of burning rubber will be substituted for a quick getaway.

The reason for this difficulty is not far to seek. In turning a corner, the distance run by the outer rear wheel is slightly greater than that covered by the inner. A balancing gear, or differential, is therefore incorporated in the final drive, so that the small difference may be accommodated. The conventional spur or bevel gear "diff" does this perfectly, but it has the fault that it is a far too efficient piece of mechanism. That makes it easy for a lightly loaded, or momentarily airborne, wheel to race away uselessly at the expense of its fellow. The actual compensation required never exceeds a few revs per minute, but the too-effective gearing can easily put all the eggs into one basket.

It might be argued that the solid axle is a cure for this trouble, and so in fact, it is. By deleting the differential altogether, neither wheel can waste all its sweetness on the desert air, and there are fair shares for all, as the politicians would say. Like the political doctrine, it doesn't work out in practice, however, for the absence of compensation introduces an extra load on the tyre treads which modifies their slip angles.

I hope I may be excused from explaining that manifestation in detail at the moment, for I have much to say in a small space. Briefly, an ultra-light car, with small section tyres, may corner quite well with a solid axle, but larger and heavier machines suffer a loss of

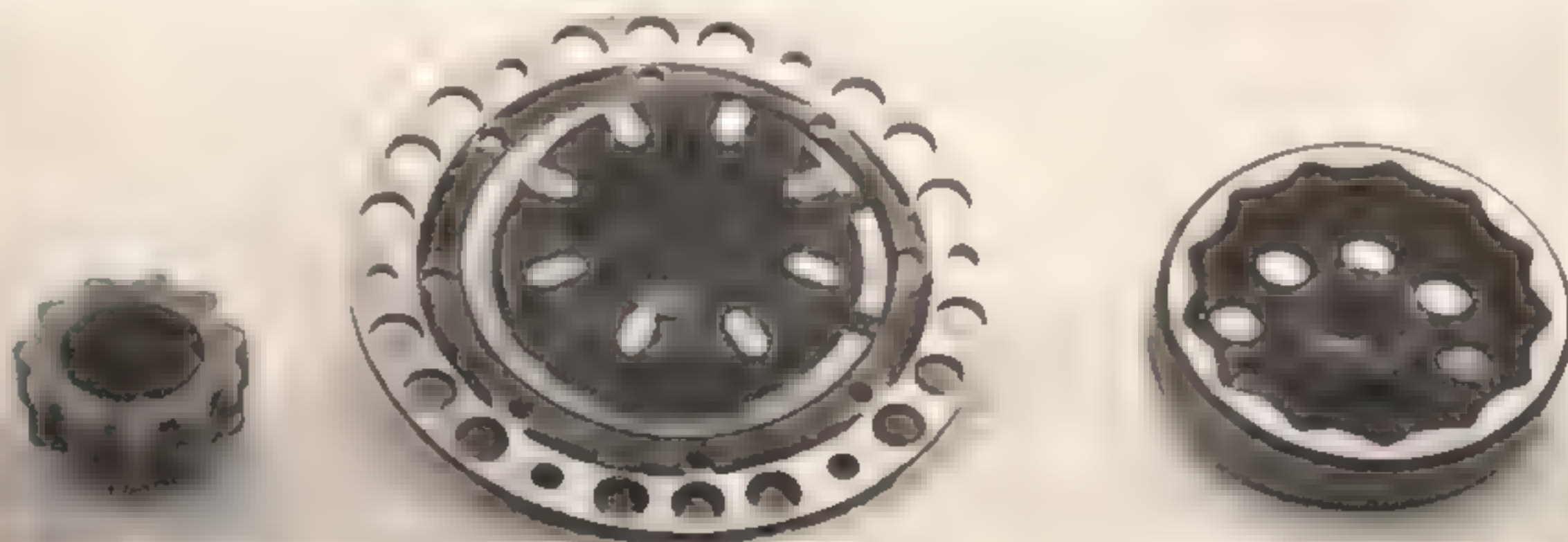
cornering power that is sufficient to be serious. Much more important, in the case of extremely powerful cars, is the instantaneous change in handling characteristics that occurs if both wheels spin together, through a momentary excess of power over total adhesion.

What is required, then, is something halfway between the solid axle and the everyday differential, and that is just what the Zahnradfabrik device is. It is a cam-type mechanism that causes no losses when both wheels are doing an equal share of work, but it becomes very inefficient indeed if more than the slightest degree of compensation is called for. In its action, it rather resembles a "semi-irreversible" steering gear, which allows just enough return motion to give a proper "feel", but immediately freezes if a violent kick is administered.

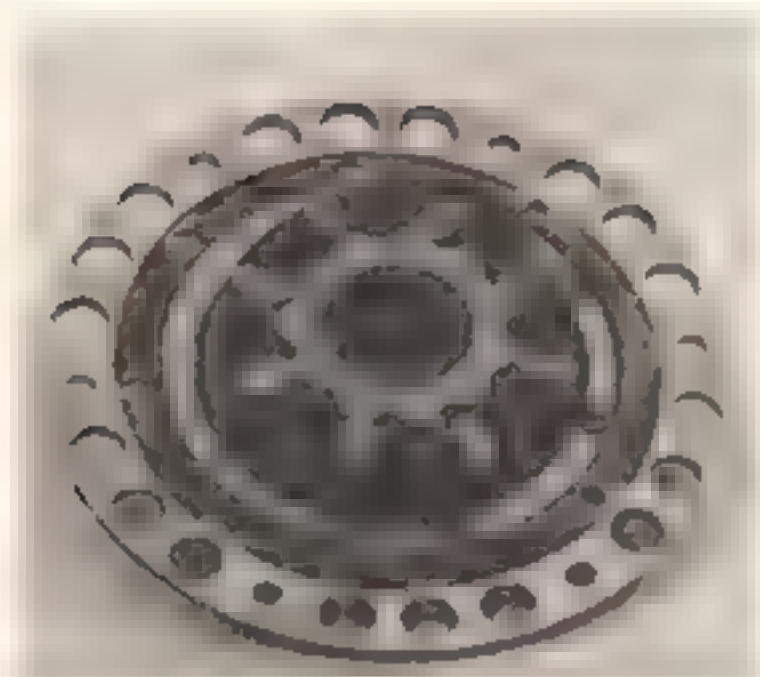
It is normal to explain the operation of the ZF limited slip differential by calling on a mass of figures and formulae. I am going to break new ground by putting the thing into basic English, and would crave the indulgence of the intelligentsia if meticulous accuracy is thereby sacrificed. In the pictures that George Phillips has taken, you see the components of a ZF, that I pinched from the Cooper works recently. It has three main parts.

On one half-shaft, there is what looks, at first sight, a small, coarse gear wheel. Actually, it is a cam with 11 equally spaced humps. The other half-shaft has a much bigger cam wheel, and this has 13 similar erections facing inwards, so to speak. It will be seen that, if the little "cog" is put inside the big one, there is a considerable space between the two sets of cams.

Into this space goes the driving drum, which carries the sprocket or crown wheel of the final drive, and it has eight slots milled in it. These slots are filled with plungers, which bridge the gap between both lots of cams, and their ends are carefully ground to a particular contour. Now, here is the crux of the matter, for if both wheels had an equal number of hills and valleys, the drum could rotate freely without driving the car



THE MAKINGS: (Left to right) Inner cam wheel, driving drum, and outer cam wheel.



★
PLUNGER OPERATION

The inner cam wheel operates the eight plungers in the manner here shown. Their freedom of movement prevents the outer cam wheel

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The Z.F. Differential—continued

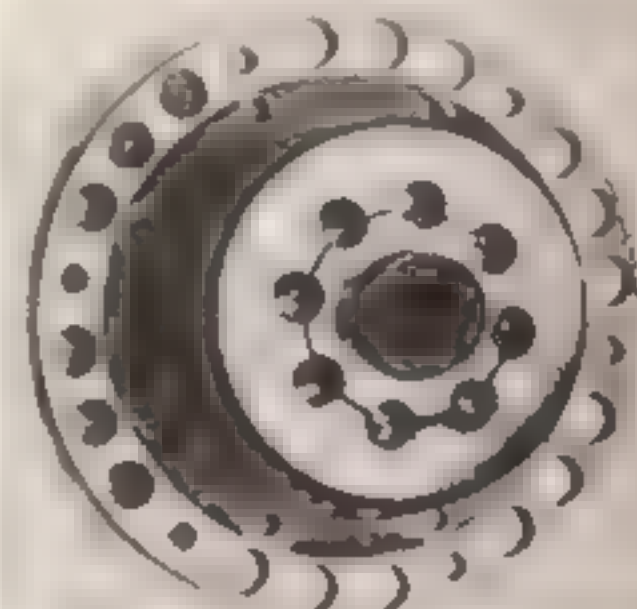
along. The plungers would just ride idly up and down, and no motoring would take place.

In actual fact, as I have already shown, the wheels do not have the same number of cams, and it will at once be seen that, with equal resistance against both tyres, a solid transmission of power will be given, of 100 per cent. efficiency. If, however, one wheel is slowed and one is given relative freedom, an adjustment of the plungers can take place, and the action is then broadly equivalent to the usual sort of differential. Let one road-wheel bounce high in the air, though, or hit a patch of oil, and a great difference will at once become apparent, for as soon as it attempts to accelerate, the mechanical inefficiency of the cam gear, with its high frictional losses, will come into play. Thus, the tyre that is still in full contact will get a good share of power, and the greater the inefficiency of the mechanism, the nearer it will approach to the character of a solid axle. At a moderate degree of slip, the mechanical efficiency would not exceed 50 per cent.

I mentioned semi-irreversible steering at the beginning, and here is the parallel, for a point can be reached where the little plungers can't cope at all, and then the whole lot really jams completely. This effect causes the typical "Z.F. drift" of a violently accelerated car as it leaves a curve.

To recapitulate: The Z.F. device is a cam-type mechanism that replaces the ordinary differential gear. It allows the wheels sufficient freedom to follow road bends, but any large variation causes such mechanical complications that stiffness, and eventually virtual solidity, occur. The loadings involved therein are very high, and superb workmanship, allied with very special steels, is a *sine qua non*. Very slight wear profoundly affects the action, and whereas a new one locks up on the slightest provocation, a well-used example gives a modicum of freedom.

I have driven the same car with both bevel and Z.F. compensation, and the improvement with the latter is immense. It might well amount to nearly two seconds at Shelsley, for instance, and in road-racing one blesses it all the time. One can sense, and even hear, the self-



★
COMPLETE ASSEMBLY

The parts are now shown assembled ready for bolting into their housing

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locking effect taking place, and although it gives the steering a characteristic "feel", there is nothing unpleasant about it.

For engineering purists, I would say that the degree of compensation given is not exactly equivalent to a normal differential, but for all practical purposes, the explanation given above is sufficiently accurate. To go further involves mathematics of alarming complexity, anyway I hope the pictures will tell their own story.

MORRIS MINOR MODIFICATIONS

THE Morris Minor was designed as an everyday car for those citizens who have to study economy, and as such it is a great success. However, it possesses a chassis of unusual merit, and is consequently a delight to those enthusiasts who enjoy fast cornering. For such people, the standard engine is the weakest part of the car, for its mediocre power output detracts from the enjoyment of driving.

Some owners have attempted to "hot up" the Minor, but John Ching, of Launton, Bicester, has really got down to the job, and has tried almost every possible modification. He is now doing this work on a standardized basis for customers, and I recently had the use of a car that had undergone the full treatment. Let me say, straight

away, that this side-valve unit is by no means so susceptible to tuning as the little Renault, but by painstaking work, a worthwhile improvement can be made.

Ching starts by deleting the hotspot, and uses the present manifold only as an exhaust duct. He supplies two semi-downdraught S.U. instruments, and mounts them on inlet pipes brazed up from silver steel tube. The ports are opened up, and the block is fairly extensively modified in the region of the valves. The head is ground and fitted on a Plexal gasket, new exhaust valves and double springs are put in, and a Lucas sports coil is mounted close to the distributor. For the whole operation, the labour costs £10, the two S.U.s £15, and the coil, valves and other material

add up to a few shillings over another £5.

What does one get for all this? Well, having carefully recalibrated the speedometer, I made some tests, and I would say that this car is some six or seven miles an hour faster than the production model. Acceleration through the gears is much improved, and one can go from a standstill to 50 m.p.h. in about 20 seconds. Flexibility and cold starting are actually better than with the single carburettor. On the debit side, there is some pinking on pool petrol, a slight increase in engine noise, and a heavier action to the accelerator pedal, though a lighter return spring would presumably obviate this.

Incidentally, the standard Morris Minor speedometer says "50" when the car is doing just under 43 m.p.h., which does seem a little excessive!

JOHN BOLSTER

LOW DOWN. (Right) J. Buncombe's Healey, driven by Dr. Spare, during the Parking Test in the North Staffs Club's Burnham Rally

BURNHAM RALLY

Spence Brown (Hillman Minx) Wins Popular North Staffs Event

THERE were 45 starters in the North Staffs M.C.'s Burnham Rally on 1st March. Early in the route came a secret check to enable officials to assess the accuracy of each car's mileage-recorder. From this point, competitors had to reach the foot of Prescott Hill in the shortest possible distance—without travelling under a railway line.

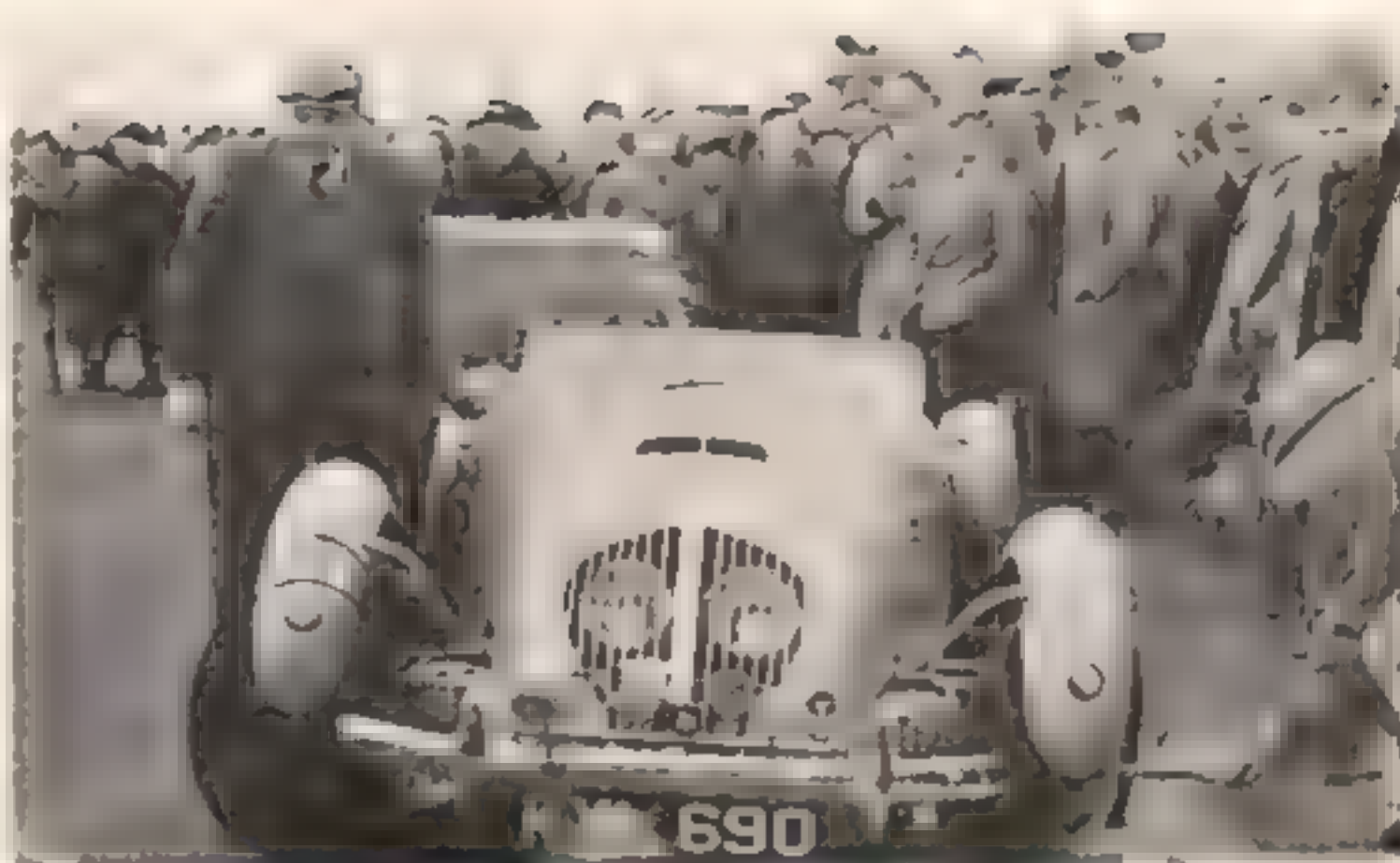
A maximum time was given for each car on Prescott, and B.T.D., was put up by Cecil Heath (XK 120). After the hill-climb, competitors had to find their own shortest route to Burnham, but the route had to pass through six observed sections. Failure to maintain the correct route through these points entailed loss of marks. A sign reading "No Through Road" played havoc with the confidence of navigators, and many a crew found themselves in uncharted territory through taking the warning too literally.

Following the road section, a major test was held on Burnham promenade on 2nd March. This entailed a 1c Mans-type start, a couple of "wobble woggles" and a reverse into a parking space twice the length of the cars. Best aggregate test performances were put up by Dr. Spare (Healey), C. Heath (Jaguar), P. Johnson (M.G.) and Jack Newton (Fiat). Full results of the Rally were available just 30 minutes after the last man attempted the test.

RESULTS

Outright Winner: R. Spence Brown (Hillman Minx), 5 marks lost.

Class C.1: 1, C. H. Davies (M.G.), 16; 2, W. Bancroft (Austin), 34; 3, A. D. Jones (Riley), 62; 4, E. J. Newton (Fiat), 66.



Class O.1: 1, B. White-Smith (TD MG), 25; 2, R. A. Gouldbourn (M.G.), 31; 3, C. E. Emberton (M.G.), 38; 4, R. Beswick (Austin), 62.

Class C.2: 1, H. S. Shepherd (Citroën), 18; 2, J. H. Greenwood (Riley), 43; 3, J. P. Boardman (Austin), 51; 4, J. S. Marshall (M.G.), 61.

Class O.2: 1, C. Heath (Jaguar), 21; 2, J. T. Spare (Healey), 41; 3, G. Cope (Lea-Francis), 51; 4, P. Scott (Alvis), 156.

M.G.C.C. (SCOTTISH CENTRE) SPORTS RALLY

Peter Goodall (Dellow) Wins P.A.

THERE were 30 entries in last Sunday's 60-mile Sports Rally, organized by the M.G.C.C. (Scottish Centre) in the East Calder-Biggarr area, and which included six driving tests. The first one introduced a water-splash, through which Comish Hunter (M.G.) and Miss Parr (M.G.) hurtled in a manner more

spectacular than most. "Speedy" Hendry (Watson Special) almost had to abandon ship six inches from the shore, whilst B. Gray (Singer) was another whose car foundered.

John Brown (H.R.G.), Peter Goodall (Dellow) and J. E. Milne (M.G.) were outstandingly good in the quarry test, whilst W. A. Brearley (Healey) was star performer in the Winston Barracks manoeuvres. Tests 4 and 5 were laid out in Happenden Camp, the first-named being a garage test with a pukka wooden hut. Good here were Wilf Young (Young Spl.) and Mick Gillespie (M.G.).

The regularity test on a dirt-track was notable for the rapid circulation of Tom Legget (Pilot) and "Speedy" Hendry, the latter displaying real Spike Rhando skill in broadsiding. F. V. Brown (M.G.) was excellent in the hotel grounds test, where several people including Ninian Sanderson (M.G.) went exploring in "foreign" territories.

RESULTS

Premier Award: Peter Goodall (Dellow), 205 marks.

Best Performance by an M.G. Owner: J. F. Milne (TD), 187.

Under 1,500 c.c.: 1, N. T. Lithgow (Austin A40), 154; 2, F. V. Brown (M.G.), 145.

Over 1,500 c.c.: 1, T. H. Legget (Ford Pilot), 162; 2, M. Wightman (Jaguar Mk VII), 132.

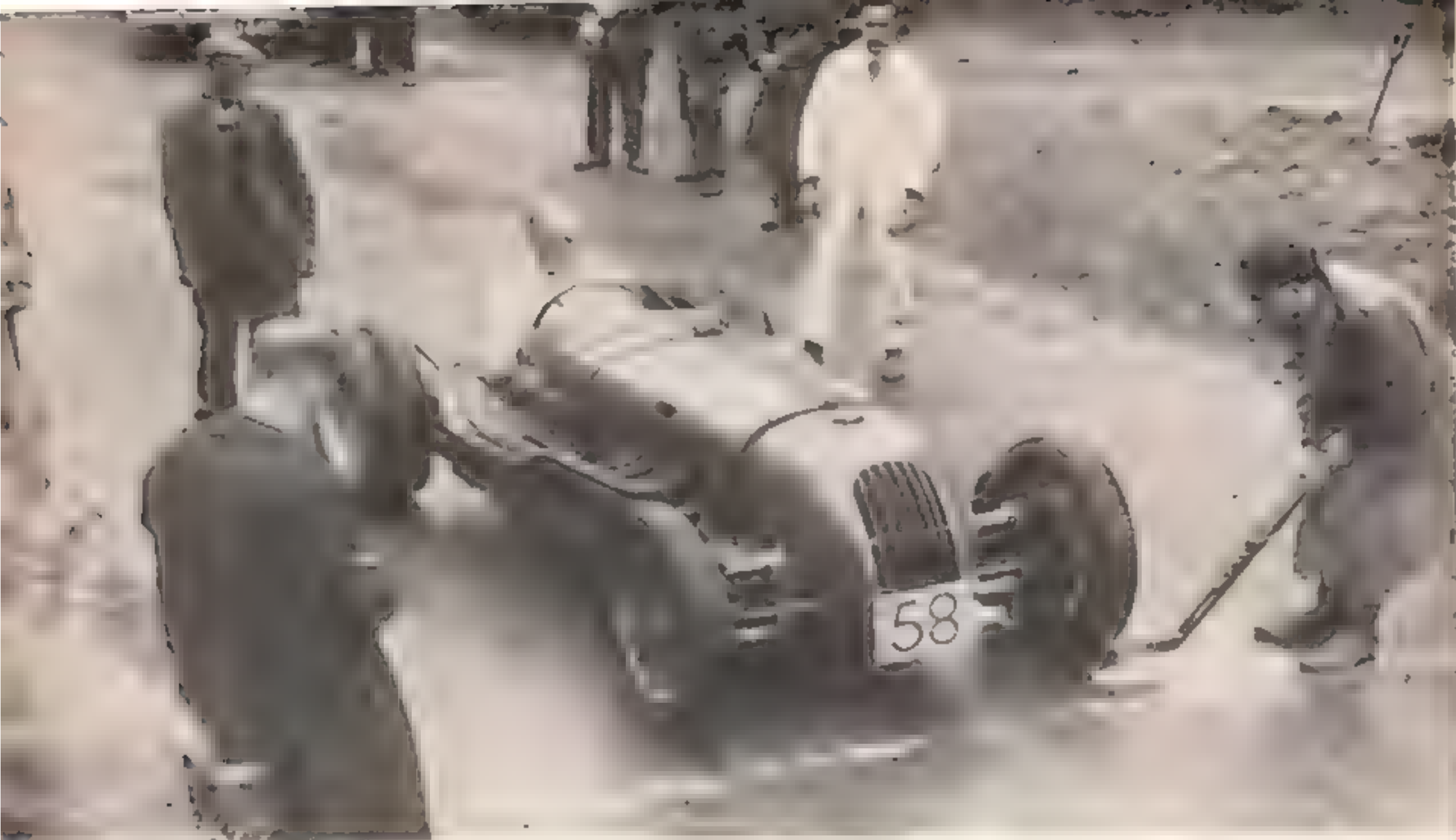
Any Capacity: 1, W. Brearley (Healey), 192; 2, J. E. Milne (M.G., TD), 187; 3, J. V. Brown (H.R.G.) and W. Young (Young Spl.), 186 each.

COLMORE TROPHY

THERE are 68 entries for Sunbac's Colmore Cup Trial on 22nd March. For the benefit of spectators, the following is a list of the most approachable sections, with the appropriate O.S. map references: Weston Wood (128 388); Fish Hill Broadway, four sections (117/371); Kington (109 267); Corndean (116 261). Coffee stop for 30 minutes at "Royal Oak", Gretton, near Prescott.

IN THE DRINK: Mick Gillespie's TD M.G. in Test 1 of the M.G.C.C. (Scottish Centre) Rally.





POST-WAR START: Geoffrey Taylor on the line at Shelsley Walsh. His car is ex-O'Boyle, with 1.5s. and post-war 2-litre engine.

THE ALTA STORY

The Origin, Growth and Achievements of a British Racing Marque
Created by the Enthusiasm and Determination of One Man

When the World War ended in 1945, Geoffrey Taylor lost no time in completing designs for which he had long deliberated. For a new Grand Prix Alta incorporating much that was established Alta practice, yet with many improvements.

Full details of the new G.P. car were announced with a considerable flourish in November 1945, and very promising the drawings looked, revealing a car wholly modern in concept, with a specification that was typically Taylor in originality and boldness. The engine remained basically as before, i.e. a twin-cylinder, four-cylinder with Alta Roots-type supercharger, but was sturdier in general dimension, while the old paired cylinder blocks were replaced by a single Meehanite casting, bolted at its lower end to the light alloy crankcase embodying the water jackets. At the top end the aluminium alloy cylinder head mated with the block by machined grooves, these containing Wills rings providing gas and watertight joints. Holding bolts passed through the block into the crankcase. Cylinder dimensions for the 1.5-litre were square, 78 mm. x 78 mm. giving 1,485 c.c., but a 2-litre engine made no change, with 83.5 mm. x 80 mm. bore and stroke.

The camshaft drive was from the rear end of the crankshaft by double roller chain, with an oil-damped spring-loaded sprocket as a tensioner. The crankshaft itself still a sturdy three-bearing Nitr-

(Conclusion)

by

C. POSTHUMUS

ol's alloy was fully counter-balanced. All joints were integral with the crank and a chromed device sprayed an oil jet to the inside of the alloy piston crowns is a detail. A large 54-cm. barometer fed the blower, which was driven direct from the fore end of the crankshaft. The earlier V.J. Powers were gear-driven at 1.47 times engine speed, and tests on the new Heenan and Froude brake installed at Surbiton showed the direct drive gave some 1 b.h.p.

The difficulty to gear sufficiently high revs and a certain temperament on the clutch caused G.T. to replace the Wilson epicyclic gearbox with an Alfa-built 4-speed all-synchromesh box. A short prop shaft took the drive to a double reduction rear axle, in the helical reduction gears being readily variable to give a choice of drive ratio. The engine in prop shaft was lowered the driver's seat by five inches.

A major change of interest was in the suspension. Gone were the vertical helical springs, gone the torsion bars; instead Taylor went over to rubber. All

wheels were to be independently suspended using double wishbone links with bell cranks on the lower ones connected by rod to Dunlop circular rubber compression pads, set in the tubular cross members of the frame. The rear wheels were driven via double universally-jointed half shafts, and damping provided all round by piston type hydraulic shock absorbers.

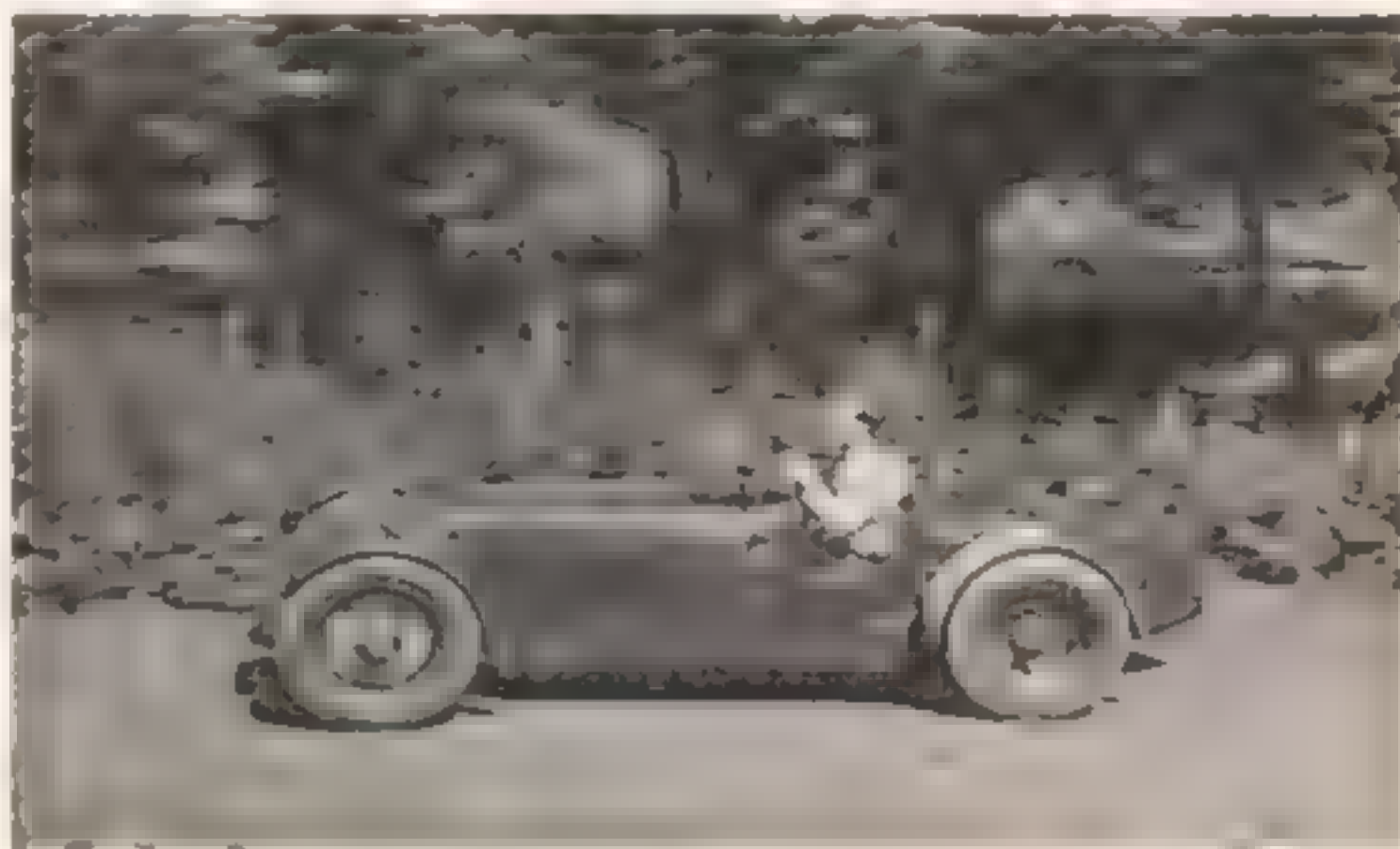
The frame was to be a sturdy affair of steel in the rear section, the clean, streamlined body was to incorporate side fuel tanks, and altogether the new Alta looked a promising 800-cc. contender in the Grand Prix field. In under 24 years Geoffrey Taylor's enterprise and enthusiasm had raised him from a lone enthusiast to a manufacturer of G.P. cars, always with strict capital limitations and restricted productive capacities. But even he could not cope with the hampering bureaucratic shorages of material and increasing production problems of post-war England as a result No. 1 of the new Alta in course of construction for George Abecassis did not make his appearance in a race until 1948.

Meanwhile, most of the pre-war Altas were in circulation again, taking a goodly share of the honours in the many sprint meetings and hill-climbs which were our mainstay during those first fuel and circuit-starved post-war seasons. Everybody with a car wanted to race and everybody without one wanted to

G.P. OF THE NATIONS: George Abecassis in his famous 1938 1½-litre Alta corners ahead of an E.R.A. at Geneva, 1946. The car was sprayed green to comply with regulations, and had a revised tail form

see some racing, thus when the enterprising Vintage S.C.C. promoted a Speed Trial meeting on a runway at Elstree, within easy reach of London, they were inundated with entries and with spectators. Geoff Taylor's famous 2-litre Alta wasn't there, or he might have done something about B.T.D., but nobody really bothered much, principal delight centring on the fact that racing had really started again, with many of the pre-war characters partaking. John Holster and his immortal "Bloody Mary" was there, as was Reg Parnell with his 16-valve Maserati; and these two tied for first place in the 1½-2-litre racing class with Bob Cowell, driving the 1939 torsion bar sprung single-seater Alta which had been built for Lady Mary Grosvenor but never raced. Cowell ran the car with 2-litre blocks, next appearing with it at the first post-war Prescott hill-climb in May. *Bergmeister* Raymond Mays was there with his famous D-type E.R.A., making B.T.D. and winning the 2-litre class, so the far less experienced Cowell could hardly have bettered his second place in that category. His fine performance was backed up by a 1st win in the 3-litre sports-car class by Abecassis and one J. B. Heath, driving blown 2-litre, 2-seater Altas.

John Heath was an enthusiastic and clever engineer who had entered into partnership with George Abecassis in a garage business called H.W. Motors at the end of the war, and these two between them embarked on an extensive racing programme with sports and racing Altas. Heath revealed a particular penchant for the sinuous Prescott grade, and at the next meeting in June he made best sports-car time, irrespective of capacity, and lifted the 3-litre sports and



SPORTS-CAR RECORD. John Heath set up a new absolute sports-car record at Prescott in 1947 with the supercharged 2 litre two-seater Alta

EX-BEADLE: (Left) Noel Carr in the potent 2-litre "independent" Alta at Prescott



2-litre racing classes as well; a fair afternoon's work, which he followed up a week or so after by winning the 3-litre sports-car event at Grandsden, the very first airfield circuit race meeting to be held in Britain. Back at Prescott in September, 1946, he again won the 2-litre sports-car class, with G. R. Hartwell and Abecassis third and fifth for Altas as well.

Meanwhile the first Shelsley Walsh climb, a very damp and chaotic Shelsley, had taken place in June, and whilst Raymond Mays (E.R.A.) took his customary Fastest of the Day, George Abecassis came a very good second in his faithful silver and red 1½-litre Alta, winning his class, of course. Altas were well to the forefront that day, coming fifth, ninth and 12th as well, while Mrs. Charles Mortimer was the quickest woman driver with her husband's pre-war 1½-litre offset single seater.



G.P. CAR No. 1
(Left) George Abecassis in the first 1500 c.c. blown Grand Prix Alfa during the 1948 British Empire Trophy race in the 10 M

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G.P. CAR No. 2
(Below) Geoffrey Crossley with Louis Rosier (Talbot) at his tail during the Belgian G.P. at Spa in 1949. The Alfa finished seventh, this being its first race of any kind

The Alfa Story—Continued

In the west the Naish hill-climb that same month was won by George Hartwell with a 2-litre Alfa, in July Noel Carr took the 2-litre racing class at Prescott in the ex-Beadle 1938 single-seater and in August Charles Mortimer set up B.T.D. in the Hartlepool Speed Trials. George Abecassis in the meantime, had journeyed to Geneva with his single-seater "11" for the G.P. of the Nations, the year's premier Continental fixture. With the 158 Alfa Romeos devastatingly establishing what was to prove a long term supremacy in G.P. spheres, the worn out pre-war British cars had a poor look in. Abecassis, his car looking unfamiliar in the British green demanded by the "Regs", managed a sixth in his heat. After a splendid start in the final in which he "mixed it" spiritedly with Frossi's Alfa and de Graffenried's Maserati, he gradually lost way, was passed first by Mays then by Bira, both in E.R.A.s, and finally was put out by a defaulting carburettor flow.

In September at the Scottish Bo'ness Hill meeting, another class win was notched up to Alfas by J. H. Williams driving the ex-Hugh Hunter 1½-litre, his time third best of the day. When the Brighton Speed Trials appeared again on the Calendar that month, Geoff Taylor could not resist another "go" at one of his favourite venues, and clocked fourth B.T.D. with the ex O Boyle car which had been equipped in 1939 with Alfa type vertical spring s.f.s. by 'Wilky' Wilkinson of Bellevue Garage, and to which Taylor fitted the improved post war 2-litre engine. Bob Cowell was sixth on Madeira Drive and rounded off his season with a class second at the West Court sprints and a third at Boulev Bay in October.

Outstanding amongst a number of similar Alfa successes in 1947 was John Heath's drive in the May hill-climb at Prescott, when he shattered the unlimited sports-car record for the hill with the 2-litre blown 2-seater. At Bo'ness the next weekend he scored another "fir", and then embarked for his first Continental race with the car, his objective the Chimay circuit in Belgium, where the Frontières G.P. meeting was taking place. Running in the sports-car race in which were several French Talbots and



Delahayes of larger capacity, he scored a splendid second place to Giraud Cabantous in the fast, special bodied 3½-litre Delahaye used by Eugene Chaboud for G.P. racing.

At home, two months later he visited Prescott once more, to crack his own 2-3-litre sports figures, also collecting a "third" in the 2-litre racing class, behind Bob Gerard (E.R.A.) and Autosport's Northern photographer Frankie Penn, driving the ex-Dixon 2-litre Riley. At this same July meeting, a young Australian A.F.O. (Tony) Gaze competed with the ex-Wakefield 1936 car, equipped with a 1939 2-litre engine. He subsequently took this car, together with Heath's record-breaking sports 2-litre Alta to Australia, where he raced them extensively in sprints and hill-climbs. A photograph on these pages depicting the two cars laden with trophies testifies to the great amount of success he achieved.

Down at Egham at the season's opening, the ex-Lady Grosvenor car jointly owned by Bob Cowell and Gordon Watson, had been fitted out with cleaner G.P. carosserie in preparation for a G.P.

or two. In May it ran in the Swiss G.P., but malign fortune sent a stone through the fuel tank, putting it in the dead car park after 12 good rounds. In August's Ulster Trophy race on the Ballyclare course Watson was lying third to Gerard's B-type and Parnell's E-type E.R.A.s. When the latter's De Dion rear end gave up the ghost, Watson automatically gained a place; then Gerard stopped for a plug and the Alta led! Not for long, true, since Gerard soon caught up again, but second place looked a cert, until an over-excited Watson overdid things at a bend and ended his race the wrong side of a hedge, a great pity.

A further 1947 event must not go unmentioned: the sale to G. P. Sleight of George Abecassis's famous "independent 14", the most successful Alta of all time. Sleight drove his new acquisition, painted blue, at Prescott in June, putting in a fine climb to come second in the 1,500 c.c. class to R. E. Ansell (E.R.A.), whose time was Best of the Day. The car has not appeared in competition since 1947 and is now back at H.W. Motors, prior to going to an Aberdeen purchaser.

The year 1948 marked the long awaited debut of the new Grand Prix car. In comparison to the so far hapless B.R.M. venture, perhaps two and a half years is not so long a time to wait, particularly when bearing in mind the limited resources of the Alta concern. Abecassis entered G.P. No. 1 for the British Empire Trophy race at Douglas L.O.M. in May, when it was observed the car varied slightly from the 1944 drawings, the body being more compact, and the fuel tanks installed conventionally in the tail. Finished in green with chromed wheels and radiator grill the new Alta was certainly a comely machine, but the dictum "if it looks right it is right" unfortunately could not be said to apply. Following a troubled practice period, Abecassis completed two unhappy laps in the race proper before retiring with a cracked supercharger blow-off valve seating.

Off to Berne the Alta next went, for

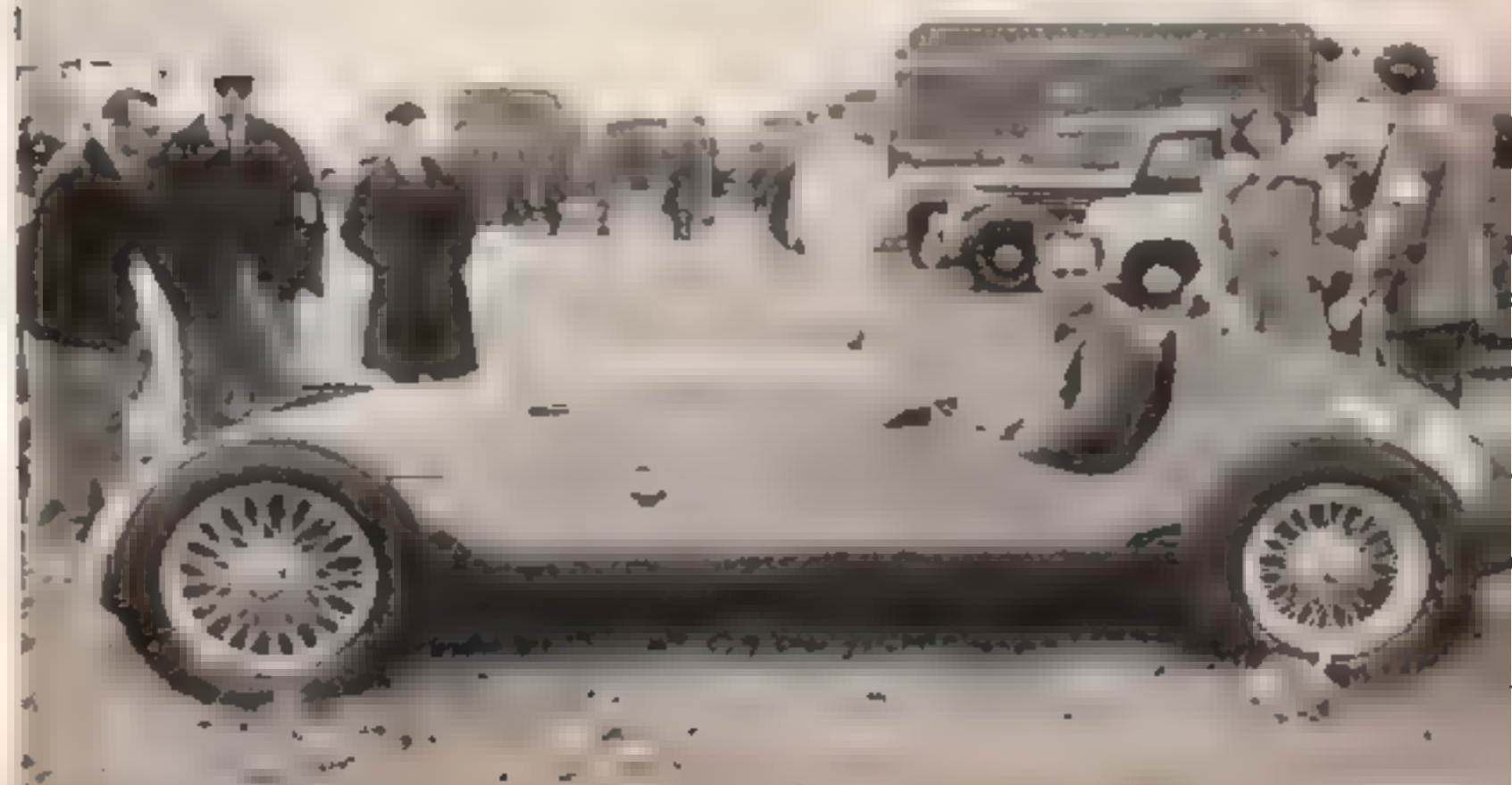
the European G.P., but Abecassis had only achieved three rounds when Giraud Cabantous, just ahead in his 4½-litre Talbot, prouctted involuntarily at Eymatt corner. George took avoiding action, his car skidded wildly, struck a telegraph pole a glancing blow and came to a full stop in a field. Next appearance was at Rheims in the French Grand Prix, but Lady Luck had no smiles for the new British car. John Heath drove it this time and, on a course occupied by snarling 158 Alfas knocking up their 170-odd m.p.h. on the long straights, the Alta, plagued with clutch slip, was very much an "also ran" seven laps and... *finis*.

Came Zandvoort in August, and the Invitation G.P. of the Dutch Club, but five laps in his heat was all poor Abecassis could manage before valve trouble took him to the pits. He stayed there... After this, the Alta appeared no more in G.P.s of 1948. The H.W. Motors stable gained some compensation, however, from the performances of a neat little car devised by John Heath, using a 2-litre, 4-carburettor unblown Alta engine and pre-war frame, mounting an all-enveloping aerodynamic two-seater body. Although intended primarily for sports-car events, Heath drove it in the Jersey G.P., as a try-out in May 1948, lying well up until the timing chain broke.

Off then, to Sweden he went for the Grand Prix at Stockholm, where his fourth place in the company of drivers like Raymond Sommer and Biondetti (Ferraris) and Bira and Franco Rol (Simcas) must be considered a fine showing. Luck changed, however, in the Belgian 24 Hours race at Spa in July, where Abecassis and Heath shared the wheel of the "dish-cover" car. After six hours they had established a comfortable lead in their class, but during the night run Abecassis missed a corner and found an unwelcome ditch. Having devoted much energy manhandling the car back on to the road, he then suffered disqualification for having expended more than the permitted hour for

(Continued overleaf)

G.P. CAR No. 3: A side view of Joe Kelly and his Alta at Silverstone revealing the pleasing lines of Geoffrey Taylor's G.P. effort



The Alta Story—Continued

completing one lap. "Rules is Rules", but it was bad luck, nevertheless.

Ill fortune again dogged the H.W. Motors band at Montlhéry in September, on the occasion of the Paris 12 Hours sports-car race. Tony Rolt partnered Heath this time, their neat little car going like the proverbial bomb and leading the entire British contingent in third place, behind a Ferrari and a 3½-litre Delahaye. Then at Bruyère corner, far from the pits, the car shed a front wheel while Rolt was driving. The rules permitted either driver to carry out repairs, so John Heath walked from the tribunes, a good 30 minutes' jog, heavily laden with tools, and set to to rectify matters. The hub nut threads had stripped but Heath improvised a repair and got the car back to the pits. Further labour ensued, then off went the car again, all efforts were in vain, however, the wheel detached itself once more and the Alta's gallant race was finally run.

That year's home events saw fewer of the customary Alta successes in sprints and hill-climbs; the cars were ageing and with the works engrossed in Formula road-racing machines no modern Alta was forthcoming to champion short-distance events. The ex-Beadle single-seater still gave occasional demonstrations of its virility, however, and Noel Carr set up third best time in the May Prescott, where in the 2-litre class three Altas, driven by Carr, Ray Merrick and J. B. Norris, took 2-3-5. Norris's car was the ex-Geoffrey Taylor 1½ machine and Norris subsequently carried out a number of modifications to suspension, frame and body which earned him dividends in several sprint events. At Prescott in June, Carr and Merrick were again second and third; in July Carr ran out of road at Orchard corner damaging his car, and it was Norris who was runner-up in the 2-litre class.

1949 was better; considerably better, and much of the credit for that year's Alta performances must go to the H.W. Motors *équipe*, whose dogged persistence and careful preparation of their cars gained some well-earned successes.

But it was Jack Norris and his rebuilt sprint 2-litre who set the ball rolling with B.T.D. and a class victory at the Vintage S.C.C. April sprints at Silverstone, and Lady Mary Grosvenor with a rebodied 1½-litre blown Alta was first in her class. Then Ray Merrick with the Beadle car made third B.T.D. at Prescott, headed only by Sydney Allard and Dennis Poore, while Carr was fourth these two making a class 1-2 for Alta. At the Blandford speed trials in June Merrick got the better of Sydney Allard by nearly a second to clock third best; then at Prescott he ran second to Peter Walker's E.R.A. amongst 2-litre runners, beating Raymond Mays. At the first 1949 Shelsley, Noel Carr took a third and ex-motor-cyclist Leo Davenport a second, while at Brighton J. B. Norris won the 3-litre racing class.

In events of International status, Heath, Abecassis & Co. had a busy season. At Jersey—let us get it over quickly—the G.P. Alta failed again retiring after a lap with a stripped step-

down gear in the rear axle unit, but John Heath got home 12th with the unblown 2-litre, its aerodynamic body removed and replaced by a Ferrari-like open 2-seat body built by the Cooper Company. This car was called the H.W.-Alta, and with the exception of Geoffrey Taylor's excellent power unit, was almost entirely of John Heath's conception. The cross-braced tubular frame was similar to the Alta pattern, the front suspension was by transverse leaf and wishbones, à la Talbot, the rear by quarter elliptics. Citroën rack and pinion steering was adapted, a Wilson self-change gearbox was fitted, while interchangeable inlet manifolds gave choice of twin S.U. or four Amal carburettors.

It was at Douglas, I.O.M., in May that outright success came at last to the persevering John Heath. The race was the 18-lap Manx Cup, in which Stirling Moss set a rousing pace with a 1,000 c.c. Cooper-J.A.P., with Folland's 12-cylinder Ferrari and Heath behind him. Folland's clutch went on lap nine, and on lap 15 Moss's magneto timing went awry, whereupon Heath went out ahead, and remained firmly there to score an extremely popular victory.

In July, Heath and the H.W.-Alta went to Rheims for the Coupe des Petites Cylindres race, competing with the Continental Formula 2 *élite* and coming fifth behind three Ferraris and a Simca. His third race was the 36th G.P. of the A.C.F., the great French G.P. itself run that year as a sports-car race on the Comminges circuit.

With such names as Sommer, Chiron and Chinetti in the entry list, and cars such as 4½-litre Talbots, 3½-litre Delahayes, a Ferrari and a team of very fleet Simcas, it will be realized what he was taking on. The heat that day was terrible, spectators, mechanics and drivers wilting under the intense heat of the sun. Very soon the cars began to wilt, too; the leading Sommer *Schubert* Talbot blew up, Chiron's legs were painfully burnt, Louveau had a 5-gallon drum of water poured over himself as a coolant and Chaboud's new Delahaye showed rooted objection to the climate and came to a dead stop. But throughout the race John Heath on the little green H.W. Alta kept going; his feet were badly blistered, the heat in the cockpit tropical but stamina and determination reaped their reward, and after the most gruelling

3½-hour drive he had ever known, he finished in second place to Pozzi's 3½-litre Delahaye; behind were such masters as Scaron, Chiron, Louveau and Chinetti, which gives some measure of the magnitude of his performance.

And what of the Grand Prix Alta? While Surbiton were busily completing the second car, George Abecassis gave his another outing in the British Grand Prix at Silverstone in May. This time the car was on better behaviour, and George had worked his way up to fifth, going really grandly. Then the hoodoo struck again, and the carburetter float chamber broke off. A long pit stop to rectify matters ensued, and when the Alta rejoined the race it was way back in the field. Abecassis then really put on speed, putting up as dashing a drive as was ever seen at the Northants circuit, making his Alta through the bends, taking the Club Corner chicane faster than anybody, and roaring past the pits as hard as he could go, lap after lap. When de Graffenried took the chequered flag, Abecassis had got up to seventh place, heading Whitehead's Ferrari, Shawe-Taylor's E.R.A. and Claes's Talbot.

Seventh place doesn't seem much to shout about, but in view of that maddening delay at the pits, it was a fine effort by Abecassis, and all who attended Silverstone that day will remember his spectacular drive. The car next went to the I.O.M. for the British Empire Trophy race. In practice, Abecassis turned the third fastest lap, but subsequently crashed with his Cooper-Vincent. John Heath, winner of the Manx Cup at the same meeting, thereupon drove the car, which was relegated from a front- to a back-row start. Unaccustomed to the machine, he took things quite steadily, but became involved in a pleasing tussle, first with Johnny Claes in his big yellow Talbot and then with Geoffrey Ansell's E.R.A. Heath finally took 10th place after a consistent and trouble-free run.

Two races and two finishes was encouraging; third time proved unlucky, however, for at Rheims in the Grand Prix de France, Abecassis ran for 18 laps before gearbox trouble despatched it to the dead car park.

In the meantime Geoffrey Crossley had taken delivery of No. 2 Grand Prix Alta, a machine in which were embodied sundry modifications following experience with the Abecassis car, and with



SILVER BOOM—Tony Guze and supporters with the two Altas, plus a goodly load of trophies won in Australian events during 1948-49

even cleaner bodywork and a neater grill, it was by far the most handsome post-war machine turned out by a British factory.

After a preliminary canter with the car down the Kingston By-pass from the works to Fox and Nichols's corner and back (what a spectacle for other motorists!), Crossley, who had no extended experience of road-racing, leave alone of a Continental Grand Prix, forthwith entered for the Belgian Formula 1 G.P. in June, Geoff Taylor chaperoning the car. With all the "giants", such as Fangio, Ascari, Villorosi, Farina and others in the same race, Crossley took things steadily, holding his revs. down and keeping out of the way of the aces. His run was trouble free, and the seventh place he gained was a notable achievement, considering that those ahead included Rosier, Villorosi, Ascari and Whitehead.

He next tried the Dutch G.P. at Zandvoort, and though the wheels put on a disturbing Terpsichorean act, he managed sixth place in his heat. In the final a water joint burst, water got into a cylinder, and that was that. Back in England he drove in the Formula race at the B.R.D.C. *Daily Express* Silverstone meeting, was 12th in his heat and 20th in the final result. That ended his circuit racing for 1949, but at the end of October he travelled to Monthéry with the car, with the commendable object of attacking some of the long standing International Class P records. First he went for the standing start 50 kilometre figure, which stood at 120.06 m.p.h., and in a hearty run of less than a quarter of an hour around the Circuit Roulier, he raised it to 125.93 m.p.h. Two days later he pushed the 50 miles standing start record up from 121.8 to 124.4 m.p.h. and the 100 kilo figure from 122.46 to 124.17 m.p.h., his car running well within its limits, and his fastest lap at 131.2 m.p.h.

The indefatigable Gordon Watson kept trying with his revamped 1939 car and at the Curragh circuit in Ireland in September's Wakefield Trophy event he became involved in the first-lap Walker/Salvadori mix-up at Kildare hairpin. Walker in the E type E.R.A. overshot the corner and Salvadori's Maserati collided with the Alta which then struck the E.R.A. The Maserati's tank split, the car bursting into flames and being completely gutted. The Alta also blazed up but was quickly extinguished.

The following year John Heath and George Abecassis went in for Formula 2 racing in a big way, with improved editions of the 1949 H.W.-Alfa. The new cars, called H.W.M.s, journeyed as a team throughout Europe and set up some splendid performances against the toughest of Continental opposition. A detailed account of their valiant exploits would be out of place in this article, since by 1950 they had become established as a separate marque, but a bouquet must go to Geoffrey Taylor for his rugged and reliable Alfa power units with which the team covered more than 6,800 racing miles during the 1950 season without a single major failure, and achieved a similar performance in 1951.

During the 1949-50 winter, Taylor had been busy applying two-stage supercharging to the G.P. 1½-litre engine, and the first unit so augmented was destined for a third G.P. car, constructed to the order of Joe Kelly the Irish driver. It did not



FORMULA 2 ALFA Gordon Watson at Goodwood. Three of these and two other cars were in circulation last season.

appear until the G.P. of Europe at Silverstone, Kelly actually taking delivery in the Paddock on the first practice day. A notable feature was its four separate exhaust take-off pipes, which produced a harsh ear-punishing noise. The car was obviously too new, but despite a slipping clutch was still running at the finish. Crossley's car suffered from a leaky water hose and finally transmission troubles, but was still struggling round at the end. Though manifestly slower than the rest of the field, the two neat green cars, driven by amateur owner-drivers amidst a whirl of G.P. professionals, made a pleasing sight amidst the preponderant reds and blues.

With Kelly temporarily forsaking his all too new Alta for his pre-war 6C Maserati in June's British Empire Trophy race, the only Alta representative was Gordon Watson. Alas, he was once again afflicted with fuel tank trouble, but it was a broken piston which finally put him out. Geoffrey Crossley had a second stab at the Belgian G.P., and in view of the ever mounting b.h.p. and pace of the Alfa Romeos and Ferraris, his ninth place after a good steady race was no mean performance. He did even better at Jersey, taking sixth position in very select company, while Kelly got his two-stage car home eighth, not without a modicum of brake trouble. During the practice period the Irishman had turned a lap in 2 mins. 6.8 secs., comparing well with the record 2 mins. 22 secs., and faster than Murray, Harrison, Shawe-Taylor, Graham Whitehead and others.

The two new Alta "boys" next went to Dundrod for the Ulster Trophy race and though poor Crossley had more than his fair share of practice troubles and abandoned the race after four laps with a sheared magneto drive, Kelly took fourth place despite running out of fuel on the last round. He had no luck in his next event, the *Daily Express* meeting at Silverstone, and then in Eire the following month he had victory in his grasp in the Wakefield Trophy race, to have it snatched away by bad pit liaison. Anthony Powys-Lybbe had led the race in its early stages with his 2.9-litre *monoposto* Alfa Romeo, but Kelly challenged strongly with a record lap of 82.73 m.p.h. The Alfa then went out with engine trouble and the race was seemingly in the Alta driver's pocket, so much

so that his pit staff, anxious for him to finish, waved him down from 81 m.p.h. to a 75 m.p.h. average, the while Duncan Hamilton was coming up hand over fist in his 6C Maserati. On the last lap, Hamilton caught up with the Alta, and Kelly all unknowingly let him by, to behold the Maserati receiving the winning flag by 3 secs.!

His only consolation, apart from second place, was his 1½-litre class win, the prize for fastest finisher at 79.35 m.p.h. to Hamilton's 78.35 m.p.h., and his record lap.

That ended the 1950 Alta year so far as big races went, while in local sprints and climbs little extra accrued, although Tony Crook gave the ex-Bennett sports-car a stretch in the Boreham speed trials, to win the racing class, rather oddly, while up north J. H. Walton did well with the original H.W. Alta.

The 1951 season ushered in Geoff Taylor's new Formula 2 car, based on the G.P. Alta but with unblown 2-litre power unit as used by H.W.M. The car is more compact, with slightly reduced wheelbase, but with the sturdy frame must be of substantial weight. Tony Gaze received the first car, joining in the famous "drowning" at the *Daily Express* Silverstone, then went off in the Continent, running at Monza, Genoa, Nurburg, Rome, Naples, and Avus. Gordon Watson, still faithful to Surbiton, had the second car, and drove it at the notorious Silverstone meeting. Asked how his car ran in the "big splash", he answered, "The car?—only one thing wrong with the car, boy—it hasn't got a ruddy propeller at the back!" He subsequently enjoyed several drier Continental events, Tony Stokes of the Ecurie Cowell Stokes had the third car on which a number of engine modifications were incorporated.

Of the three Formula 1 cars extant, only Joe Kelly ran his, without any conspicuous success, although he turned a spirited fastest lap at the summer Winfield meeting. He is appearing again with the car this season, and as recorded elsewhere, won the open handicap race and made fastest lap at Newtownards last week-end. With newer, lighter Formula 2 cars on the stocks, and with Peter Whitehead, an Alta "old boy", amongst the drivers to handle them, this coming season will be awaited with interest.

RUSSELL LOWRY'S

Northern Lights

AU 'VOIR — THEY BEG TO DIFFER — PER
ARDUA—BACKROOM DENIAL—QUICK DIP

THIS unhappily, is the last outburst of "Northern Lights" that will grace the pages of AUTOSPORT—at least, as a regular feature from the Lowry inkbottle. Having worked his fingers to the bone spreading alarm, despondency and racial hatred, your contributor's immediate spare time ambitions are limited to the catching of trout and the cultivation of left-handed wimbles.

It would be a graceless thing to leave without a word of thanks to that host of friends—and friendly enemies—who have made the last 18 months such a cheery and worthwhile experience for me. I hope we shall yet meet on many a rain-soaked mud patch or dusty airfield, to warm up old arguments and start new ones. At least, the oft heard warning "better be careful, chum, or you'll find yourself in 'Northern Lights'", will have lost its sting.

AMONG the discussions with which I leave you, is one which raged round the bar of the Crescent at Ilkley after the 4/44. Should competition numbers be decided by ballot, by order of receipt—or simply by crystal-gazing?

If it be granted that an early number is an advantage (and that statement is enough in itself to start a row) then it should not be easier for the local member of an organizing club to get such a number than for the distant subscriber belonging to an invited club, and probably receiving regulations and entry forms a day or two later than the native. It is argued that this is what happens when numbers are allocated in order of receipt of entries. The situation can be met by distributing forms to invited clubs a little earlier than to home members, but this is not entirely satisfactory.

The upholders of the balloting system (including the North-West London Club, who are going so far as to hold their ballots in public) maintain that theirs is the only fair system. Maybe so, as far as competitors themselves are concerned, but what about the unfortunate organizers? Surely the ballot is a direct invitation to a torrent of last-minute entries, whereas the 'order of receipt' system encourages people to send their forms in early, and thereby is of great help to hard-worked officials. It also allows some flexibility for the accommodation of people who, for special reasons such as distance or other commitments, ask for early (or late) numbers. There are cases in which applicants have abused this flexibility, but not, I imagine, sufficient to be of real importance. The debate continues.

THE contest for this same 4/44 Trophy brought out at least a couple of epics of determination in the true tradition of Archie Frazer-Nash. Frank Aikens and Donald Ackernley at least beat their last year's performance by reaching the first section without trouble. At Kex Beck, however, the motor took exception to the presence of foreign bodies (including a broken drill)

and it became necessary to remove the head. The road was accordingly strewn with blowers and ancillary components. After a trip home for spares, everything was got together again and off they set to tackle the remaining sections. Before long, the head had to come off again. Smearred with grime, but beaming like cherubs, the pair resumed their journeyings. On Leyes Lane, when the artificial hairpins had been safely negotiated, an enormous wall came rushing at them. To everyone's astonishment (for this was not the first impact) the towering masonry simply disintegrated. The faces of the pair as they gazed into fresh air instead of at good Yorkshire stone, would have made an interesting photographic study. Anyhow, the farmer having been appeased, our worthies eventually produced themselves, tired but happy, at the finish.

The other hero-in-adversity of the day was Leslie Winder, although in this case the finish was reached at the end of Malcolm Bateman's tow-rope. The trouble itself started when the Winderwagen came to an unexpected, steaming, standstill in the approaches to Kex Beck. An unaccountable paper clip was removed from the carburation system, but this provided only an incomplete cure. Eventually, it was decided to abandon "blowing" for the day and revert to the former twin-carburettor system, which, however, had to be fetched from home. The operation was completed and motoring was resumed. It was bad luck indeed that such persistence had to finish with the indignity of towage.

CRICKETERS may be relieved to know that the research results mentioned in a recent "Northern Lights" did not come from the B.B.C., who, I understand, have not done any sporting research for quite a while. This seems odd in itself, but lots of other people go Galluping around the polls, and I was basing myself on ear-witness accounts of an eminent utterance.

WE approach the summer season with the clouds still thick over Northern racing prospects. It will be bitter indeed if we are to miss the excellent sport seen in recent years at Croft and Gamston under the ægis of the Darlington, Nottingham, Sheffield and Hallamshire and Yorkshire Sporting Car Clubs. Enthusiasts will be able to console themselves on Easter Saturday at Brough, where the Blackburn Company's aerodrome provides one of the best of circuits, and their Club lays on a magnificent afternoon's racing. It will be intriguing to see how the reshuffled teams, models and motors work out. For the backrooms have indeed been busy.

AS a trial's fade (loud and prolonged applause from the Opposition) for a few months, it may be interesting to speculate gently on the stars who will be rising to full brilliance later in the year. If I had to pick one, it would be Edward Harrison. And for a real "dark horse"—for lack of a better name—I stick my pin in Bill Underwood.

AND so Friends, Romans and Northcountrymen, having borrowed your ears, I pack my tent and steal silently away.

KEN BAILEY WINS

Huge Entry for Bolton-le-Moors
C.C. Rally Driving Tests

A STAR-STudded entry of 151 was obtained for the very popular Rally Driving Tests, organized last Sunday by the Bolton-le-Moors C.C. Tests were held at Hulton police driving school, and at Rivington Park, near Chorley, from which points wireless contact was maintained between H.Q. at the "Royal Oak", Chorley. Walkie-Talkie was also used between marshals in charge of tests, and in consequence there were no hold-ups whatsoever.

The Mayor of Bolton presided at a dinner following the event, at which Mrs. Nina Imhof presented the prizes.



Best performance of the day was put up by that crafty master of special tests, Ken Bailey in his Vauxhall-powered Special.

RESULTS

General Classification

1. Ken Bailey (Bailey); 2. Vernon Pilkington (Dellow); 3. Ian Appleyard (Jaguar).

Class A: Derek Howard (Morgan).
Class B: Jack Reece (Ford Anglia).
Class C: Ben Hepton (Healey).
Class D: R. D. Smith (BMW).
Class E: R. Oakes (E.R.H.).
Class F: Denis Hather (Keystone).
Under 1,000 cc: 1. Jackson (945 Wolseley).

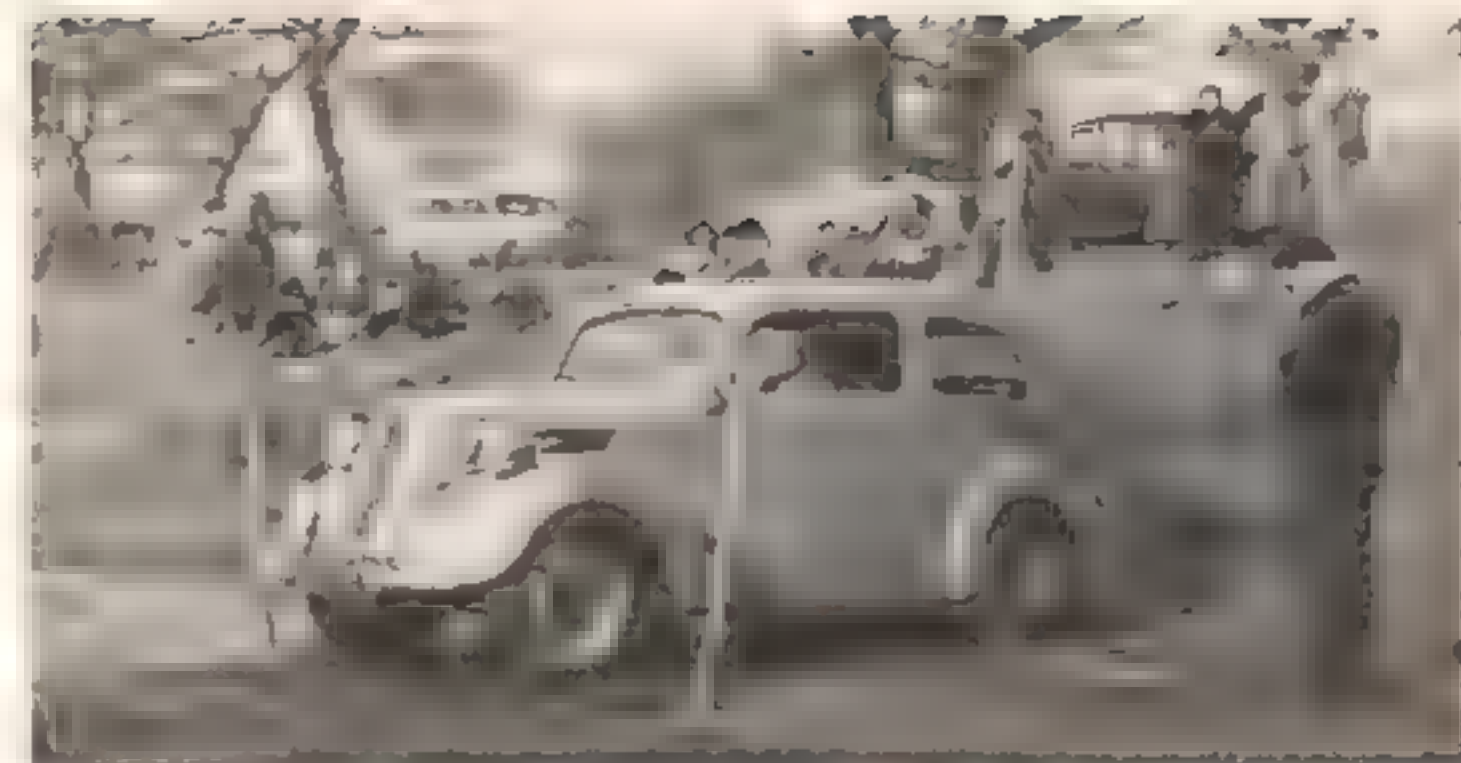
Ladies' Prize: Miss Barbara Kemble (Ford Special).

Team Award: V. Pilkington (Dellow), Peter Glaister (M.G.) and C. R. Hardman (Dellow).

* * *

M.G.C.C. (MIDLAND CENTRE)

THE talk on "Tuning" given by John Thornley and Mr. Boyle, from S.U., brought an audience of some 90 members and interested friends to the Grand Hotel, Birmingham, on 14th March. John Thornley had but very recently arrived back from Ireland, making his appearance doubly welcome. He spoke in his usual breezy fashion, amusingly but so naturally leaving aspects of carburation to Mr. Boyle, who followed the first



INCH MAN: (Above) Jackie Reece (Ford Anglia), Class B winner seen during the Garage Test

DIGGING-IN: (Left) M. Tardoff's Sunbeam-Talbot punishes the roadway when braking from speed in Test No. 11

REX CHAPPELL'S WIN WITH COTTON 3

LAST Sunday Rex Chappell (Cotton 3) won the Kentish Border C.C.'s annual J. B. Taylor Cup Trial from a field of 23. During the morning session, much of the course was water-logged, and Spratt's Hill failed the entire entry with the exception of Lew Nottley (Cox 2). For the afternoon's assault, the sun dried up the hills, and only two provided any difficulty.

RESULTS

J. B. Taylor Cup: Rex Chappell (1,172 Cotton 3).

Best in Opposite Class: R. E. C. Brookes (1,172 E.R.P. S).

First Class Awards, Class A: Alan Day (1,172 Spence V.D.). Class B: J. V. Lewis (1,172 Chigford); Percy Barden (1,172 Dellow S).

Second Class, Class A: Jim Appleton (1,172 Appleton). Class B: A. D. Hasmer (Austin); G. J. Newman (Cox 1).

Team Prize: Chappell and Brookes

* * *

WOLSELEY HORNET SPECIAL CLUB

THE Wolseley Hornet Special Club now hold a Noggin & Natter on the first Monday in each month at the Railway Tavern, Bollo Lane, Chiswick, in the saloon bar, with 7.30 p.m. as "starting time".

The first "N. and N." was held as an experiment, and by closing time it was decided that the evening had been most successful, and should be repeated. There was, however, a noticeable absence of ladies, and it is hoped that this will be rectified at future meetings.

The Railway Tavern (the landlord of which is Len Harvey, the boxer, now retired from the ring) is situated on the north side of Bollo Lane, which runs from Chiswick Park station to Acton Town station. Len Harvey, incidentally, was once a Lancia enthusiast, and is still very keen.

speaker after an interval given over to questions from the audience.

Before actual carburation, Mr. Boyle first ran through the technicalities of the various fuels, without delving into higher mathematics, and gave as his opinion the fact that a lot of tuning for performance was done with far too rich a mixture. Questions again came thick and fast as he concluded, and but for the time factor the discussion would have gone on even longer. Later members, however, argued amongst themselves at the bar.

At the recent A.G.M., the following officers and committee members were installed for 1952: Chairman: D. G. Bryant, Hon. Secretary: W. Hale; Hon. Treasurer: K. N. Teasdale. Committee members: A. St. J. Michael, D. G. Darby, H. W. F. Boulton, W. W. Watts, J. E. Palmer, R. S. Heinrich, S. A. Seacombe, A. J. Brown, T. H. Wareham, and J. P. Glover.

Future events on the Midland Centre's Calendar include the following:

19th-20th April. "Welsh Rally" (C)

24th May. Sporting Half Day (C)

13th June. Rally Film Show and Social Evening

20th July. Club Day (Non-Permit)

20th September. Sporting Half-Day (C)

19th October. Production Car Trial (C)

21st November. Annual Dinner Dance

5th December. Film Show

Correspondence

Drifting and Sliding

ALTHOUGH I have not been in a position to receive my copy of AUTOSPORT earlier, I trust that my own personal views on the above subject will be accepted.

For those interested in negotiating a turn, corner or curve call it what you may, I append my own views, in the form of three acts to this art, and it can be taken for granted that these acts are practised by myself.

1. Commence the turn as wide as possible, and just before you actually get to it.

2. If the understeer characteristics of the car are correct, the tail should now begin to slide OUTWARDS.

3. The slide is corrected, or controlled by the use of sufficient throttle to keep the car in a *straight line*, pointing diagonally to the "infield", and at the same time the front wheels will be turned INWARDS. The duration of the drift depends on the shape of the turn, but the driver should always keep his eyes ahead of the turn, and in this manner he can make the necessary movements to adjust his course.

Success depends largely on the driver's ability, his memory of the course and an anticipation of trouble at all times. Don't forget, it's easy to go in, but not so easy to get out!

A drift can be controlled quite easily, once it has commenced, but behaviour can depend largely on the following items: Shock absorbers, tyre pressures, tread design, and assuming the car does possess a normal understeer effect in the first place.

Drifting a car through a turn should not be confused with power sliding. In the latter case, it is necessary to have a car which possesses a weight displacement with between 55-60 per cent. at the front, loaded. Too much rear axle weight causes crowing-up and wastes time.

The turn should be taken in a gradual power slide, and the front wheels will be pointing *outwards*. In actual fact the car is being steered by the throttle.

As the turn is continued, and gets tighter, the throttle is used so as to get a certain amount of "lift" to the leading front wheel, and as soon as the degree of slip becomes apparent to the driver, he counteracts his wheel direction to allow the car to continue the function of going through the turn at a fast pace, applying directional movement by the use of turning inwards, this increasing his "scrubbing". A correct amount of throttle is required to keep the car in its diagonal line of approach to the exit of the turn.

In the case of either drifting or power sliding, it is necessary to make fullest use of the traction without having a breakaway. At this particular point, the car is being balanced between centrifugal force and that of tractive adhesion.

Dirt-track racing can offer a first class schooling on this subject. To illustrate my point, I quote four Grand Prix drivers who have excelled in both types of racing: Fangio, Gonzalez and the Galvez Bros. Well, what'd ya know?

SPIKE RHIANDO

CAPE TOWN, S.A.

B.R.M.

CONGRATULATIONS on your declaration of loyalty to the B.R.M. cause in your Editorial of 1st March. It takes courage to give the project a fair crack of the whip when even now several national dailies are seeking to make news value from their effort.

I would plead with all fellow enthusiasts to press the B.R.D.C. to run the British Grand Prix as a Formula 1 event and to allow us the possibility of seeing Moss and Fangio (surely the world's most formidable pair) duelling with the Ferrari ace. From the financial viewpoint there can surely be no doubt that this would make the finest Box Office attraction for years.

Let the true British sporting spirit pervade and help to give this much maligned Bourne firm one of their last chances under the present Formula 1 to show the world that "Britain can make it".

Finally, may I pay tribute to the courage of the Trust and Raymond Mays particularly in negotiating for the services of the World Champion, Juan Manuel Fangio, in the full knowledge that it would incur the wrath of at least one "leading headline-seeking motoring correspondent".

All the very best of everything to your marvellous weekly and special thanks for the stand you make in the cause of the B.R.M.

K. D. EVANS.

TOTNES, S. DEVON

Address Sought

FOLLOWING a road accident on 20th January, I was taken to the Royal Infirmary, Chester, for treatment. Whilst there, a gentleman, whose name and address I do not know, who had heard of my accident whilst visiting someone in a different ward, lent me several copies of AUTOSPORT with the request that I should look well after them as he was collecting them. I recovered from my injuries more rapidly than was expected and left the hospital without seeing the owner of the magazines again.

I have since tried to trace him, without success, and would be very glad if he will contact me at my home address, "Ashleigh", Arrowe Park Road, Woodchurch, Wirral, Ches. Telephone No.: Lpton 549.

A. NOEL ORMEROD

WEST KIRBY, CHES.

Wooden Trees—Why?

WITH reference to Mr Inglis's report on the Lagonda 24 it was the most hectic Rally I have ever been in. Why were there no straw bales on the corners? A lot of people seemed to need them.

It took me quite a long time to get my M.G. unwrapped from that tree. See "For Sale" column!

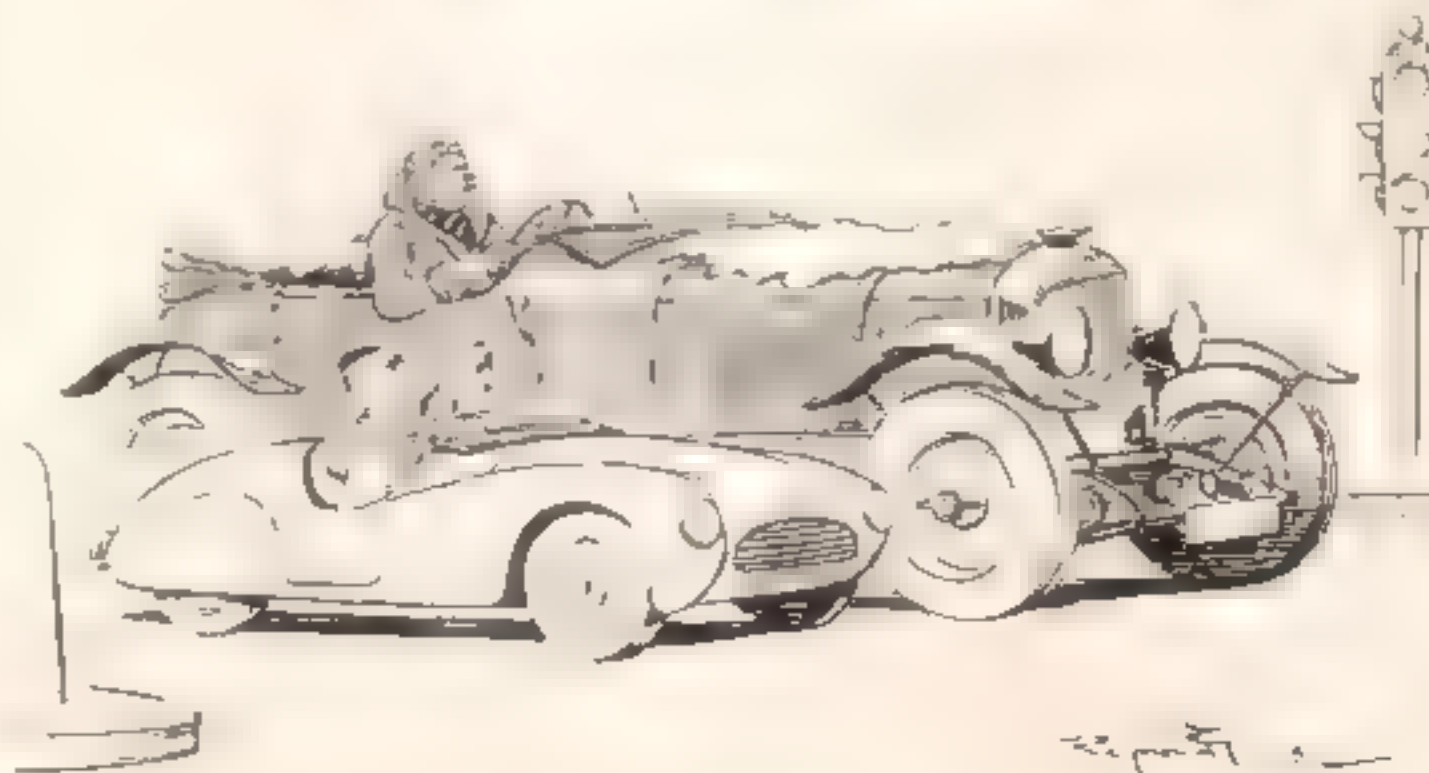
CHRIS SIMMERS

DONIDGE.

Club Events—Why Bar the Place-Man?

NOW that the question of medicals seems to have been resolved, at least to the satisfaction of those concerned in sprints and hill-climbs, another aspect of the F.I.A. regulations appears in need of immediate revision. At present any driver who is placed not lower than fifth in a race sprint or hill-climb held under an international permit is barred from competing in any events of these types held under closed or closed invitation permits during the rest of that year and the following year.

While no one can quarrel with the fact that drivers who have distinguished themselves in G.P. races are ineligible to take part in club meetings, or even those who have been successful in Production Car Races or short races at international events at Goodwood and other aerodrome circuits.



Correspondence—Continued

but to bar a driver who has successfully run at International Prescott or Brighton Speed Trials, for example, seems to carry the matter too far. Under these rules it seems Gordon Parker, Gillie Tyrer, Victor Horn and Archie Butterworth, to name but a few, will be missing from a great majority of sprints and hillclimbs this year as few are run under international or national permits. Surely the regulations were never meant to bring about this state of affairs. As to the half-litre brigade, a place at an International Brands Hatch could bar a driver from sufficient club events to ruin his chances in the AUTOSPORT 500 Championship.

J. WHITE.

CLAPHAM, S.W.4.

Trials Cars

WITH reference to the article, "Return to Normality", in the 15th February issue regarding the revision of the R.A.C. regulations for trials cars, while disagreeing with the completely freakish specials and "Knobbies", cut tyres or track grips, I feel the placing of the engine should be left alone. If the organizers of the trials are given a free hand in the placing of sections then the competitors should be given an equally free hand in devising machines that can get up the sections—so long as the specials are cars proper, and are taxed, insured and have full road equipment; i.e., normal seating accommodation, reasonably orthodox body, no bicycle lamps.

The transport of specials to trials by lorries and trailers should be banned. They should be driven to the trial, and, if possible (!) from the trial.

Surely a trial should be as much a test of the competitor's ingenuity and resourcefulness as a test of his driving (and passenger's bouncing!) ability.

So may we be spared all these regulations—we have enough these days, anyway.

B. J. BAGNALL.

WALFORD, SALOP.

The South American Way

IN your issue of 15th February you comment briefly on "another South American Race" won by Fangio. It happened that I was in Rio de Janeiro at that time, and attended the race, known as the Quilts da Boa Vista. It took place in what can be described as the Hyde Park of Rio, in the grounds of the old Palace once occupied by the Emperors of Brazil. The circuit is about 2½ miles long, very narrow, with an asphalt surface and high curb.

The programme opened with a motor-cycle race in which one young man, riding in his first race, thought it unnecessary to strap his crash helmet on, lost it in a crash and was killed. A most upsetting affair, wholly unnecessary.

The next thing that horrified me was the complete lack of spectator control and almost complete lack of protection against errant cars or motor-cycles. Spectators actually crossed the course as and when they felt inclined. On the more acute corners those on the outside were roped back a few yards and a few sandbags were placed on the curb. Everywhere else spectators stood four or five deep right on the edge of the pavement, if not in the gutter, with cars going by less than a foot or two away.

To make matters worse a steady drizzle started just before the car race started. I stood on the inside of a bend and was fascinated as the field swept by with spray flying. Gonzalez in the lead. Spectators, with true Latin American verve, stepped forward to wave on their favourites, shouting "Fangio!" "Gonzalez!" or "Landi!" at the top of their voices. One or two of the Brazilian drivers were on the erratic side, their tails snaking frighteningly from side to side as they accelerated away up the hill, between the densely packed crowd.

I had, in some ways much to my relief, to leave the race early, but realized that I, too, would have to cross the circuit! I selected a spot where I could see at least 200 yards up the road and waited for an opportune moment. Shades of spectator marshals and policemen came before my eyes, but I eventually dashed across in much the same way anyone else who felt like it!

I heard the next day that there was a collision between two sliding cars, luckily with no very serious results. This accident was between a 4CL Maserati and a Lago-

Talbot, which had a wheel ripped completely off. Gonzalez retired and the race became a duel between Fangio and Landi. At the time I left, Landi had actually passed Fangio and was in the lead.

As I walked away from the course I thought of the beautifully revetted banks round the esses at Le Mans and the concrete fence at Goodwood, then of the Brazilian spectator standing in the gutter waving on his favourite as he flashed by a foot or so away! Give me motor-racing on our side of the Atlantic!

T. BARRACLOUGH, MAJOR.

BISHOP'S STORTFORD.

Rally Co-Drivers

NOW that the "Rally" season is upon us, may I put in a simple plea to organizers on behalf of navigators and co-drivers.

Our presence is requested in the regulations—in fact it is true to say that in most events our presence is compulsory. May we, therefore, be afforded the simple courtesy of our own copy of the programme?

In last year's "London Rally" two copies of the programme were sent to each competitor and I know that this was appreciated by competing crews.

In the majority of events in the past, in which I have been privileged to compete, I have had some difficulty in obtaining a copy of the programme, not having been the entrant of the car. In some cases copies were not even available at the start of the event.

Please, Mr. (or Mrs.) Organizer, will you send another programme along for the co-driver, who is a necessary part of the competition.

I know that printing costs are high these days, but trust that my request is reasonable.

IAN MACKENZIE.

LONDON, S.W.7.

Cumberland Bouquet

MAY I thank you for your help in the past, as your reports of our events from time to time have helped us a great deal in gaining over 150 members, thus showing the people of this area that we are doing our best to keep things moving.

As one of the far northern car clubs we often get requests to run controls for other clubs on their way north; last year saw the M.C.C. "London-Edinburgh" (two controls and a test) the R.A.C. Rally (a pair of controls), also the M.C.C. "1,200 Miles" and so on.

C. W. A. SLATER, HON. SEC.
CUMBERLAND S.C.C.

SCALLERY, CARLISLE.

The "Paris-St. Raphael"—Panhard and "P"-type M.G.

I HAVE just had a slight shock. Having returned to England after the finish of the Paris-St. Raphael Rally, my mind was still dwelling idly upon the swarm of French baby cars which won all the first places in the General Classification. Certainly, the formula favoured the smallest class, but the fact remains that they went magnificently, often touring for hours at around 70 m.p.h., and two or three were most brilliantly driven. Rather wishing that we had in this country some sports and touring-cars of similar size and behaviour, with the cost of living having gone up yet a further 7½d. a gallon, it occurred to me to check up just how much improvement on identical performance these little cars show over my old P-type M.G., with which I managed to pull off a win of the General, in this same event 14 years ago, in 1938. I got out my results scrap book, an honourable volume which dates back to my first driving seasons in the mid-30s. I turned back the pages—and came upon the shock!

The performance times are for the speed trials which are always an identical feature of this Rally, namely: a 500 metres Standing Start, followed by a Flying Kilometre. I will start by giving two of the class-winning times made on Monthéry in 1951. (In 1952, the Italian Club made a fashionable muddle of this test!)

The Dyna-Panhard of Madame de Roquefort's, which won the class and the Rally, returned the following figures: 500 metres, 29.3 secs.; kilometre, 37.2 secs. In the class above, my TD M.G. Mark II (compression ratio 8½-1), weight with passengers and luggage, 1,073 kilos (or just over a ton) made

(Continued on page 377)

News from the Clubs

Club Secretaries are invited to send details of the activities of their Clubs for inclusion in this section. We would like you to regard this in the nature of a weekly Club Magazine, and a speedy way of informing your members as to future happenings.

SOUTH WALES HILL-CLIMB

THE Tenby Motor Club are going all out to make a real success of their Lydstep hill-climb meeting on Easter Saturday, 12th April. This is a Closed Invitation event and includes the following classes:—

Racing-cars up to 500 c.c.; 501-1,100 c.c. and 1,101-2,000 c.c. U/s

Sports-cars up to 750 c.c., 751-1,100 c.c. and 1,101-1,500 c.c.; 1,501-3,000 c.c. and over 3,001 c.c.

(Supercharged sports-cars will compete in the class immediately above their normal capacity.)

To satisfy a long felt want, Tenby are also introducing a separate class for open M.G. cars up to 1½-litres, with a perpetual Challenge Trophy for the fastest M.G., as for fastest in all classes. Place men will also receive awards and a saloon-car handicap class will be run, for all standard saloons regardless of capacity (unblown).

Clubs invited to compete are Sun-bac, Bristol, Midland Auto, Half-Litre, Hugatts, Carmarthen and S.W. M.G.

Lydstep is perhaps the fastest hill-climb in the country, record-holder Ken Wharton having ascended in 29.87 secs. It is no sprint course, however, for it embodies four very tricky corners in its 880 yards, and is very popular both with competitors and spectators.

Regulations are now in print and will shortly be available from the Secretary, Tenby M.C., 24 Parcyrakon, Carmarthen, Wales.

NO FREE SAMPLES

Thames Estuary Club Visit Ford's

SEVENTY members and friends of the Thames Estuary Automobile Club spent an enjoyable afternoon on a conducted tour of the Ford Motor Company's works at Dagenham on 5th March, despite the fact that no free samples were distributed at the end of the tour and "Export Only" was the order of the day.

The tour embraced visits to the Power House, the Foundry, the Tractor assembly lines, the main workshops and the final assembly lines for the various private cars produced by the company.

At tea, replying to a vote of thanks proposed by Club Vice-Chairman R. A. Golding, the Publicity Manager of Fords said: "It gives us great pleasure to welcome the Thames Estuary Automobile Club to Fords, for I feel we have a common bond—the Thames—we live



HANG ON! Maurice Wilde's blown Ford on Kex Beck during the Yorks S.C.C.'s 444 Trial. He won a first class award.

by the Thames and you incorporate the more river stretches of the same river.

Fortnightly T.E.A.C. events include the following:

19th March. Noggin and Natter at the Shepherd and Dog, Canewdon, Rochford, Essex, at 7.30 p.m.

23rd March. Anniversary Rally, first car leaves the Queens Hotel, Westcliff-on-Sea at 10.30 a.m.

Particulars of these may be obtained from the General Secretary, S. L. Offord, 68 Exford Avenue, Westcliff-on-Sea, Essex.

LONDON M.C. LITTLE RALLY

REGULATIONS have now been issued for the Little Rally, a closed event to be run on 19th April by the London Motor Club, formerly the N.W. London M.C. This event starts and finishes at Hindhead, Surrey, and will cover a route of approximately 199 miles. This will not be a tough, time-defeating affair, but should provide first-class motoring through interesting country. There will be eight special tests and first car leaves at about 8 a.m.

Secretary of the Rally is Mrs. Nina Imhof, of Robin Hill, Coombe Hill Road, Kingston-on-Thames.

750 CLUB FORM SUBSECTION FOR FORD 8 AND 10 ENGINE CARS

THE A.G.M. of the Seven-Fifty M.C. was held at the Abbey Hotel, Stonebridge Park, N.W.10, on 3rd March.

The Secretary, Ken Bickle, was able to report most satisfactory progress during the preceding 12 months. The membership continued to rise steadily and now stood at 536. In status, too, the Club had progressed, largely on account of the ambitious Six Hours Handicap Relay Race, which proved

such an overwhelming success that the R.A.C. had upgraded the event to National status for the forthcoming season.

Thanks largely to the "Six Hours" and to two very successful dances, the cash balance stood at close on £200, with virtually no outstanding liabilities. While this was not thought to be excessive on account of the much greater commitments of the Club, it was clear that the annual subscription could remain at the very modest figure of 10s. for the time being.

The Secretary went on to announce that to further the Club's policy of catering for the impecunious, a subsection would be formed among the Associate Membership for those with Ford 8 and 10 engine cars, with space in the "Bulletin" to cover their interests and with special classes in Club events.

The Club officials for the forthcoming season will be: Chairman, Holland Birkett, Captain, Bob Yeats; Secretary, Ken Bickle; Treasurer, Ken Welfare; Committee, A. W. Butler, A. W. Cannon, A. C. B. Chapman, T. Lush, J. S. Moon and L. West.

After the conclusion of the Annual General Meeting, the Austin film, "Round the World in 21 Days", was shown.

GOSPORT'S TREASURE HUNT

THE first Gosport A.C. event of 1952, the Treasure Hunt on 1st March, was run under good weather conditions. Eighteen competitors were sent off from the starting point at Fatcham at intervals of five minutes, with their first clues. These were conceived in rhyme and picture. In addition to clues, a variety of objects had to be collected en route: a used cinema ticket, an unused postage stamp and a bag of crisps were but a few.

Apart from the pranks of some country yokels who saw fit to remove a

(Continued on page 378)

Correspondence—continued

the following times: 500 metres, 25.4 secs.; kilometre, 33.4 secs.

Now to go back 14 years, the best times in the *smallest* class were made by my "PA" M.G., narrowly beating those of Madame Larget, Balilla Fiat, with Miss Stanley-Turner, "PB" M.G. third. The all-up weight of my "P" M.G., with passengers and luggage, was 16 cwt. 1 qr. The official times were 500 metres, 25½ secs., kilometre, 34½ secs.!

The old car was quite standard, with 7.3-l compression. Moreover, by 1938 it was already past its first youth. Also, far from being run under favourable circumstances, I can well remember being rather annoyed after these speed trials, that the M.G. had been unable to equal its practice times put up in England, owing to a mistake whereby I had been given a too heavy engine oil, then to add to my trouble, insufficient time was allowed before this test to warm up the engine on a cold February morning!

These surprising figures seem to show yet again what a wonderful stepping stone the P-type M.G. was to the British car that might-have-been, if only motoring development had not been so sadly hamstrung by the benefits of wars to promote civilization, with their material shortages and mounting production cost! Imagine the true descendant of our pre-war P-types, about 10½ cwt., with steering and suspension of an unearthly perfection—(remember how those hard but brittle cart-springs on the Ps used to break up on pavé?), propelled by an exquisite little engine of vast efficiency, free from hag-ridden components like the poor old M.G.'s oil-soaked dynamo! With a light aerodynamic body, either open or closed, the little car would, like the P-types, have been good value at around £200!

BETTY HALL

PULBOROUGH, SUSSEX

Make British G.P. a Formula 1 Race

As a reader of AUTOSPORT and a motor-racing enthusiast since pre-war days, I would urge all fellow enthusiasts to join with me in appealing to the B.R.D.C. for a Formula 1 British G.P. The Belgians have set us an example in their decision to abide by the current formula, and we surely have even more reason than they to come to this decision.

Some doubt has been expressed as to the success of a Formula 1 race without Alfa Romeo competing. Surely the recent tests at Monza at near-record-lap speeds of the B.R.M. should remove any such doubt. These test runs, incidentally, being done by a 22-year-old driver with no previous experience of modern Formula 1 cars, and at some 1,000-1,500 r.p.m. under maximum speed. The B.R.D.C. need have no concern about spectator-appeal; Formula 1 racing has no equal as a spectacle and the mere appearance of the B.R.M. should attract thousands.

Apart from these considerations, we should, in fairness to the B.R.M., concern and Raymond Mays in particular, have a Formula 1 British G.P., which may prove to be the only home event in which the car is likely to meet serious foreign opposition.

A. J. A. ASHFORD
B.R.M.A.

LEYTON, E.10.

B.R.M.

As a staunch supporter of the B.R.M. through thick and thin, it is a pleasure to read your sane and reasoned editorials about the car and all Bourne's difficulties, after the futile bleatings of many writers who ought to know better. I became a branch organizer of the B.R.M. Association last October, so that I could at least do some little thing to help the project along its uphill journey. It is, however, a difficult task to convert and enrol supporters who, in most cases, have been swallowing the trash that some of the organs of the Press have churned out in past years.

W. R. SHORT

LANE FIGHT HANTS

We are delighted to receive letters intended for publication. We do not insist on typewritten copy, but please write in a hand we can decipher, and on one side of the notepaper. The Editor is not, of course, bound to be in agreement with opinions expressed by readers, but this does not mean that subjects will be excluded on these grounds.

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News from the Clubs—Continued

complete set of clues, the evening was a great success.

The finishing point of the 50-mile course was the "Old Ship" at Lee-on-the-Solent. Many of the competitors' comments were of amusing incidents *en route*; there was the farm hand who received an unexpected lift to his local in return for directions to this clue; and the woman who turned and ran in fright when a driver stopped to enquire his way. Then there was the utter surprise of the stationmaster selling platform tickets to people totally disinterested in that mode of travel. Villagers queuing for a bus at Southwick found great amusement in misleading competitors searching the village pump for a clue.

Only seven completed the course without fault, and only two failed to arrive at the finish.

The results were as follows.—

1. Mr. and Mrs. R. W. Elliott (Vauxhall 14), 2 hrs. 36 mins.; 2. A. V. Barnard and J. R. Midgley (Morris Minor, 1932), 2 hrs. 51 mins.; 3. C. Reynolds (Sunbeam-Talbot 90), 3 hrs. 8 mins., and Mr. and Mrs. J. Donnelly (Standard 12), 3 hrs. 8 mins.

MIDLAND M.G. WELSH RALLY

SUPPLEMENTARY Regulations have been issued for the M.G.C.C. (Midland Centre) Welsh Rally, a closed-to-Club event taking place on 19th-20th April.

The Rally will consist of a 200-mile road section with special tests ending up with a Concours d'Elegance at Criccieth, Carnarvonshire. Starting point is Rochuck Lane, West Bromwich. The entry list closes on 7th April.

S.W. M.G. SUNDRIES

THE S.W. Centre of the M.G.C.C. has, since its Boxing Day Kimber Trial taken time off for films, and two shows have been presented; the first in January had a small select turnout, and was held in Roger White-Smith's private cinema. The lucky few feasted on Esso's now famous colour films and fare from Mrs. White-Smith's table.—"Oh yes, I must *aller au Mont* this year". By February hibernation was over, and a vast crowd, augmented by the Bristol M.C. and L.C.C., streamed to the Ship, Alverstoke for seats, standing room and noggins to see the Shell display, as fine a showing as any. And there were no subsequent reports of Stirling drifts nor W. C. Fields fantasies on the fog-bound journey home.

So back to motoring; the centre's members have been busy with other folks' business: the Burnham Rally had R. White-Smith, co-driver Mike Llewellyn, win the 1,500 open class and record the fastest time in the sea-front tests on a TD ahead of XKs and Healeys, etc. and in the closed 1,500 class, C. Hughes Davies and Caleb Griffiths in 1½ M.G.s lay second and third on arrival at Burnham. The former then proceeded to win the class outright. The same week

end saw J. Murray and M. King among the "Lagonda 24" entries, battling it out with the Welsh mountains and six-figure references.

The future offers the Annual Standard Car Trial on 29th March, starting at the Mile 3 Roadhouse at 2.30 p.m. This is the event for the chap who wants to have a go with his go-to-office-wagon; 30 miles of Mendips interrupted by nine tests, two smooth non-breaking trials, hills and a touch of map work. Entries to R. White-Smith, Bourne House Winterbourne, Glos. by 26th March.

SUNBEAM REGISTER TREASURE HUNT

THE Treasure Hunt and Tests organized last Sunday by the Register of Wolverhampton Sunbeams were run off in quiet and rather damp terrain in North-East Hampshire. The event ranked as a Touring Assembly and other one-make organizations had been invited. The entry consisted of 14 Sunbeams—the oldest R. C. Carter's Kaiser war touter—an International Aston Martin, two 14 40 Humber, a modern Morris-Oxford, and a Lancia Lambda driven by Mrs. Jeddere-Fisher. The other lady competitor was Mrs. Leroy in a Sunbeam.

Competitors were required to complete a route of rather less than 50 miles but ~~as they had clues to solve and at one point had to search for treasure~~ at a height of 540 feet up in the woods the average speed was in no way Grand Prix. Free samples of the excellent Lifeguard car polish proved acceptable items of "treasure" at certain points and the tests, which were both ingenious and amusing, were held on private roads by the generous co-operation of the Headmaster of the Lord Wandsworth College in the little village of Long Sutton, where the sixth-form turned out on marshalling duties.

RESULTS

Treasure Hunt

1. R. Menzell (1930 International Aston Martin, A.M.O.C.), 110 marks; 2. R. S. Osmaston (14 40 Humber, Humber Register), 105 marks; 3. B. I. Burgess (1930 16 h.p. Sunbeam, Sun-

beam Register), 100 marks; 4. A. D. Forshaw (1931 16 h.p. Sunbeam, Sunbeam Register), 100 marks.

Driving Tests

1. R. Menzell (1930 International Aston Martin, A.M.O.C.), 394 marks; 2. R. S. Osmaston (14 40 Humber, Humber Register), 432 marks; 3. A. D. Forshaw (1931 16 h.p. Sunbeam, Sunbeam Register), 452; 4. F. W. Joyce (1933 16 h.p. Sunbeam, Sunbeam Register), 461 marks.

MORGAN 4/4 A.G.M./DINNER

THE first Annual General Meeting of the Morgan 4/4 Club takes place on 5th April at the Royal Hotel, Horsefair Street, Leicester, commencing at 5.30 p.m. The Annual Dinner and Presentation of awards will follow.

BFLEAST B.R.M.A.

THE first meeting of the B.R.M. Association, under the auspices of branches 376 and 407, took place on Thursday, 6th March, at the CITY M.S. Belfast. It was decided that a B.R.M.A. Social should be arranged at the earliest opportunity in order that members may get to know one another.

After the meeting, a film show, consisting of B.R.M., Rubery Owen and Shell-Mex films was given.

Judging by the keen attendance it appears that the B.R.M. Association is beginning to get really active in the Province.

DINNER, PRIZES AND DANCE

THE Southsea M.C.'s Dinner Dance took place on 7th March, when amongst the guests of honour were Wally Waring and Sidney Allard. The latter was prevailed upon to address the 200 guests on the subject of his Monte Carlo Rally experiences, after which the season's awards were presented. Mrs. Betty Symonds took the Banyon Trophy for best novices' performance, while Ron Faulkner won the Victor Ludorum Maybury Trophy for best performance by a member.



RILEYS, RILEYS, ALL THE WAY
The scene at Church Crookham, Hants, during the Riley M.C. (London Centre) recent Winter Rally. In front is Mrs. Olga Johnson's 1½-litre saloon.

News from the Clubs—continued

THE BENTLEY OWNERS' CLUB

ON Sunday 24th February, at the kind invitation of Mr and Mrs. F. Marsh some 27 members of The Bentley Owners' Club took tea with them at Rollington Farm, Corfe Castle, Dorset.

In the evening the party visited the Bankes Arms Hotel, Corfe Castle, for a social evening, where they were joined by other members and friends. During the evening "Motor Racing", that excellent Esso sound and colour film, was shown.

THE SECOND KESWICK RALLY

A FIELD of 48 cars turned out for the Cumberland S.C.C.'s Keswick Rally, which started from the George Hotel, Chollerford, on 8th March. Competitors were dispatched on the first 270-mile stage to Keswick by President Philip Rambaut, first car to leave being George Watson-Clark's Healey.

Entries came from the Berwick, Newcastle, Darlington, Lancs, Scottish Sporting and Vintage Clubs, and the fastest cars were the extra special XK 120 of Bobbie Dickson and Hodgson's standard model. Jack Reece of Liverpool ran his "post-vintage thoroughbred" Riley, and another in this category was J. Grice's Austin.

The course led towards Jedburgh to the first test, one of those held on a T-road where cars keep shooting in and out of sight backwards and forwards and stopping astride lines. Fastest three were Peter Reece (Riley), J. Hall's Triumph and Denis Done's Vanguard. Onward through the night the cavalcade reached Crosby airfield, where drivers played "in and out the window" amongst the oil drums. P. G. Walton (Hillman) making best time by three secs.

The route led through Brampton and Alston to Langwathby Eagle Club, where the weary were regaled with soup and rest. A regularity test beyond Kendal followed, and as dawn was breaking drivers faced the last test, a "con-



LO BORO' DINNER. A group of members and guests at the L.C.M.C. Annual. (L. to R.) M. E. A. Manning, R. V. Hammond (Chairman), Dr. D. P. Harris, John A. Cooper, G. C. Duce (President), Mrs. Joan Gerard, Prier Stubberfield, Miss Jean Southern, G. C. Plucker, Bob Gerard and J. V. Skirrow (Club Secretary).

down-hill, then reverse" affair, the niftiest being Walton, Croft (Vanguard) and the Reece cousins. Final results showed the latter in the ascendant, with J. heading P. B. and Middleton (Vanguard) third. Bobbie Dickson and J. R. Robinson won other awards and the team prize was captured by the Berwick and District Club.

A.C.O.C. EAST ANGLIAN RALLY ROUND

REGULATIONS and entry forms are now available for the A.C.O.C. East Anglian Rally Round on 19th-20th April, which is open to members of any RAC recognized club, and to members of one-make organizations and visitors whether recognized or not.

Starting points will be at Enfield, and Wansford (Northants). Entries close on 24th March, but late entries may be accepted provided accommodation is available at Great Yarmouth. The route entails 180 miles passing through the famed East Anglian tulip fields. Regulations from T. C. Sanders, The Little Cottage, Chertsey Road, Shepperton, Middlesex.

LOUGHBOROUGH COLLEGE MOTOR CLUB DINNER

YET another successful Annual Dinner was held on 14th March, by the Loughborough College Motor Club, when about 140 people were present, including a number of distinguished guests amongst whom were Mr and Mrs Gerard, John A. Cooper, Peter Stubberfield, F. H. Howorth, Dr. Harris, and Squadron-Leader King.

John Cooper proposed the toast of the Club. In his reply G. C. Duce, President of the Club and a College lecturer, stated that though students were not in a position to attain the greatest heights, their enthusiasm and resourcefulness always provided a fascination for him.

The toast "The Guests" was proposed by J. V. Skirrow, Secretary of the Club. F. H. Howorth, Vice-President of the Manchester University Motor Club, responded to this toast.

Mrs. Bob Gerard presented the awards with her accustomed grace, and the prize winners included: P. Stubberfield, F. H. Howorth, Squadron-Leader King for their performances in the Sprint Meeting in October; M. E. A. Manning, M. A. Royce and K. Higham (Night Rally, February).

After an entertaining cabaret presented by five student members, the evening rapidly drew to a close with the usual "Natter and Noddy".

THE WINWOOD CUP TRIAL

THE Berkhamsted M.C. and C.C.'s Winwood Cup Trial takes place on 23rd March, and starts from the Kings Arms Hotel, Berkhamsted, the first competitor being away at 2.01 p.m. This hotel also provides the finish, and a tea afterwards.

This closed event will be run over a course of about 45 miles in the Berkhamsted-Dunstable-Aylesbury triangle, and includes tests and controlled sections to be covered within specified time limits. A 20 m.p.h. average is scheduled for the whole course which will be entirely over surfaced roads and will not include any chassis-breaking or coachwork-spoiling sections. Thus the event is suitable for any type of car, and for the novice.

Vehicles will be divided into classes, and, in order to give all entrants an equal chance, the vehicles will be handicapped accordingly in all tests involving time.



PASSENGERS MUST REMAIN IN THE CAR. The passenger on Norman Young's Riley-Ford hybrid puts a new interpretation on an old rule in the Leinster M.C.'s recent Lincoln and Nolan Trial.

News from the Clubs—Continued

EAST ANGLIAN DRIVING TESTS

THE E.A.M.C. Driving Tests meeting scheduled for 30th March, has been brought forward a week to Sunday, 23rd March, to avoid clashing with the West Essex C.C.'s Boreham Speed Trials.

The Tests take place at Earls Colne aerodrome, beginning at 2 p.m.

CAERNARVONS AND ANGLESEY M.C. '52 FIXTURES

BIG Three in the 1952 programme of Caernarvonshire and Anglesey M.C. events are a Rally on 10th-11th May, Speed Trials on 21st September and a Trial on 16th November. These are the first R.A.C.-sanctioned events to be sponsored by "C. and A.", and all three are closed-to-club, although arrangements for short-term membership will probably be made.

The Rally in May will be organized in conjunction with the South Caernarvonshire M.C.

TOM LUSH TALKS TO MID-SURREY A.C.

ON Friday, 7th March, Tom Lush of the Allard Motor Co. Ltd., gave a most entertaining and detailed account of the Monte Carlo Rally to some 60 members of the Mid-Surrey A.C. at the club room. On the following Sunday the members were able to bring into use any tips they learned from this discourse when competing in a Map Reading Trial in the Loth Hill area in Surrey. The winner of the event was Pellett (Ration) with Phillips and Tuson (Rover) second, and Ashby (Bradford) third. This event was well supported despite continuous rain, and another similar event will be held later in the year, centred on Milford, Surrey.

The Club's Grand Cup Trial, booked for 27th April, will now take place on 4th May. The start will be at 2.30 p.m. from the Cricketers, Purbeigh.

CHESHIRE B.R.M.A. FILMS

THE Bramhall and Cheshire Hulme Branch (No. 274) of the B.R.M.A. will be holding a Film Show at the Ladybrook Hotel, Bramhall, tonight, 21st March, beginning at 8 p.m. Programme comprises the first-class Esso racing film. Branch organizer is Guy Entwistle, who hopes to promote further shows and talks.

MIDLAND ALLARD ACTIVITIES

ARRANGEMENTS are well in hand for the season's activities of the Allard O.C., Midland section, and these commence with the Annual General Meeting to be held at Six Hills, near Leicester, on Sunday, 30th March.

The Annual Dinner takes place on 5th April at the Foxlydiate Hotel, near Bromsgrove (A441 Bromsgrove-Redditch road) at 6.30 p.m., tickets 15s. 0d. each.

Easter Sunday is the date for the first National event of the season. Cars assemble in time for lunch at Ettington Park Hotel, six miles outside Stratford (A34 Stratford-on-Avon-Oxford road).

A course of some 40 miles has been arranged through the lovely Cotswold

COMING ATTRACTIONS

March 20th-30th, Geneva International Motor Exhibition.

March 21st, Rally of the Snows (T) Switzerland.

March 22nd, Sunbac Colmore Trophy Trial, Start, Shipton-on-Stour, 9.30 a.m.

B.A.R.C. Members' Meeting, Goodwood.

Grimsby M.C. Night Trial

Armagh and District M.C. Trial

Herefordshire M.C. Welsh Rally

Morgan 44 Club Navigational Rally, Oxford Airport, Kidlington 1 p.m.

Intake S.C.C. Cheltenham-Meunham Trial

March 22nd-23rd, A.C.O.C. Night Navigational Trial, Start, Grove Hill, Twyford, Bucks, 10 p.m.

March 23rd, Coupe d'Or Race Meeting (F) and 750 c.c.h. Monthery.

West Hants and Dorset C.C. Hartwell Cup Trial, Start, Grosvenor Hotel, Swanage, Dorset, 11.30 a.m.

Thames Estuary M.C. First Anniversary Rally, Start, Queen's Hotel, Weymouth-on-Sea, 10.30 a.m.

Jersey M.C., Spring Trial

M.G.C.C. (A.W.) Cockshoot Trial, Start, Railway Station, Llantyllin, Montgomeryshire, 11 a.m.

Huddersfield M.C. Standard Car Trial

M.G.C.C. (S.E. Centre) Chilterns Trial

East Anglian M.C. Driving Tests, Earls Colne, Start 2 p.m.

countryside. It will be necessary to book for lunch, tea, dinner, etc., owing to the Bank Holiday.

Details of any of these events may be obtained from A. C. Russell, 98 Glyn Farm Road, Quinton, Birmingham, 32.

"HIGH TOBY" NIGHT RALLY

ON Saturday, 8th March, the South Essex M.C. held their first rally of the season, the "High Toby" closed Night Navigation and Map Reading competition for the Riley Cup.

Thirteen Club members accompanied by their navigators and back seat drivers left the Orsett Cock at three-minute intervals, and by means of Ordnance Survey maps and six-figure map references, picked their way through 90 miles of country lanes of North Essex to collect the numbers of 10 chosen telephone kiosks.

Over the whole course, which was made up almost entirely of secondary roads, an average of 25 m.p.h. had to be maintained, and at four kiosks the competitors found marshals waiting to clock them in to check the average m.p.h. The weather was kind and the fog did not materialise, and so great was the skill of several competitors that a great race developed for first place, and this was not decided until the finish at the club's headquarters at Horndon-on-the-Hill was reached.

W. H. Evans in a Riley scrambled home in first place after some noble work by his navigator J. L. Barnard, and R. Andrassy in a Ford was just behind

in second place. Third was P. Nichols in an A40, and O. Berkshire in a Hillman was a good fourth.

Congratulations must go to the club's sports secretary E. Steele who organized this his first event, with the help of A. W. Garner and a number of marshals, and the club is looking forward to its next rally on 25th May.

RILEY M.C. (LONDON CENTRE) A.G.M.

THERE was a good attendance at the London Centre of the Riley Motor Club's A.G.M. held on 7th March, at Pimms Restaurant, Bishopsgate, which was also supported by officials from the Riley Works. The following Officers and Committee were elected for 1952:

President: Victor Riley

Chairman: R. James

Deputy Chairman: L. C. Hebblethwaite

Hon. Secretary and Treasurer: E. Bransby Williams

Hon. Social Secretary: V. O. Driscoll

Hon. Trials Secretary: R. C. Porter

Works Liaison Officer: S. Haddleton and Committee members: A. G. Parker, F. D. Cooper, A. P. Warren, C. E. V. Wilkins and H. V. Hutton

Following the A.G.M., a buffet bar provided time for "natter and noggin", during which an excellent programme of films were shown, mainly in colour, of last season's British and Continental racing events, also the complete film story of Major Goldie Gardner's famous M.G. from the preparation at Abingdon Works, its shipment on the *Queen Elizabeth*, to the actual records being broken at Utah.

HALF-LITRE RACE MEETINGS

THE Half Litre Club's International meeting at Brands Hatch on Easter Monday will include a Junior race in heats and a final for those drivers who have not gained a first, second or third place in a 500 c.c. race, and a Senior race in heats and a final.

The Club have a race meeting at Snetterton airfield circuit on 31st May, the programme including a Formula 3 race, which will be the main event of the day. It will be run in 10-cup heats and a 30-lap 500 c.c. final, and will be supplemented by a *Forum Libre* event. It is hoped that some £800 in prize money will be available.

The Secretary is K. E. Carter, 100 Station Road, Sidecup (Footscray 4318).

CLUB FIXTURES

Wester O.C.—Dinner Dance, 21st March, Pavlova Arms, Westminster, S.W.1, 7 p.m. for 7.30 p.m.

Bentley O.C.—Social Evening, 22nd March, Denham Arms, Uxbridge, 7.30 p.m.

Bentley D.C.—Supper and Dance, 22nd March, 8.30 p.m. Home W. West, Denham, 8.30 p.m. 23rd March, 8.30 p.m. Home W. West, Denham, 8.30 p.m. 24th March, 8.30 p.m. Home W. West, Denham, 8.30 p.m.

Bentley Vale M.C.—Supper, 24th March, 8.30 p.m.

Under A.C.—Cup and Film Show, 26th March, Club Rooms, Denham Place, Denham, 8 p.m.

Welsh Border F.C.—Grabbing, 26th March, 8 p.m. Road, Oak Green, Street Green, Kenilworth, 8 p.m.

Vintage M.C.—Lunch, Thursday, Meeting, 27th March, 1.15 p.m. Farnley, Farnley, Midland, 2.15 p.m. Clarendon, 3.15 p.m.

Cheltenham M.C.—Bottle Drive, 27th March, 1.15 p.m. Clarendon, 2.15 p.m.

BENTLEY D.C. (MID-WEST REGION) FILM SHOW

THE Mid-West Region of the Bentley Drivers' Club held their second Film Show at Elcot Park Hotel, Nr. Newbury, Berks, on 15th March, with an attendance of over 70 members and friends. The show, consisting of the 1951 "Esso" motor-racing films, and also last year's Le Mans film in colour, was very popular and greatly enjoyed by all those present. The party continued until well after midnight when for those who had lasted the course, the management very kindly provided eggs and bacon, on the house!

At a further film show, which it is hoped to present early in the autumn, the original and complete record of the 1905 Gordon Bennett race will be shown, together with other very interesting racing films. Full details of this will be announced nearer the date.

BUGATTI D.C. PRIZE-GIVING

ABOUT 200 members and their friends attended the annual prize-giving at the Welcombe Hotel, Stratford-on-Avon on 9th March.

A trip round the car park just before lunch was well worth the time, as a wonderful array of various Bugatti types included "La Royale" driven by Jack Lemon Burton for the occasion. Stirling Moss's XK 120 coupe attracted much attention, whilst he himself must have been kept quite busy signing autograph books for the enthusiastic "fans" of various members.

After lunch Mrs. Joan Gerard



BUGATTI D.C. Annual Prize Giving (L. to R.): Roy Taylor (Chairman), Bruce Leatherer (Competitions Secretary), Jack Newton (General Secretary), Mrs. Joan Gerard and Peter Stubbfield, who was presented with the Victor Ludorum Trophy

presented special awards to the victors of the Monte Carlo teams of Sydney Allard (Guy Warburton and Tom Lush) and Stirling Moss. Desmond Seannell and John Cooper (unfortunately Lush and Cooper were not able to attend). This was followed by the presentation of awards for the past season's events. A special award was also presented to the President, Eric Giles, in recognition of his outstanding service to the Club.

The Chairman, Roy Taylor, then addressed the gathering, and gave some very interesting facts about the club's affairs and their hopes for the future.

Then followed a very excellent film show presented by Dick Hathershaw, which was very well attended—then a last hasty natter in the car park and the party broke up and wended their separate ways homeward, having had a most enjoyable day.

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RILEY 9 "Gamecock" sports, in excellent condition throughout. Bodywork in scarlet. Brand-new hood. Taxed. Bargain £200.—Jack Leeson & Partners, Brook Street Garage, Southbridge 58081.

1938 RILEY 1½-litre 6-light Kestrel saloon, green and cream, £435.—Montrose Motors, 91 Epping New Road, Buckhurst Hill, Essex. Phone: Buckhurst 1171.

1929 RILEY 9 chassis complete, available. Offers.—11 Holmdene Avenue, North Harrow.

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FOR GENUINE BUSINESS REASONS, Ward Trials Special, just fitted supercharged Ford Ten engine, twin S.U.s, Scimitar, 4-branch exhaust, all new. £245. Also Javelin, reg. Nov. 1948, roomy extra and mod., carefully maintained in perfect condition. £150.—Farnworth, 34 Osborne Road, Manchester, 19. RUS 301me 2713.

RILEY Special, needs completing. Lowered, shortened and underslung chassis, fitted with Mercury engine and gearbox, good tyres, £60. Also many Riley spares. G.P. Simson re-ground crankshaft, rod and mains remachined and bored £10, or complete engine £15.—2 Raphael Avenue, Gidea Park, Essex.

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1934 Bentley 1½-litre sports saloon, reg. 1951	£275
1931 Bentley 4½ blower, V.D.P. tourer ..	£495
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1936 Bentley Red Label 3-litre saloon ..	£275
1935 Bentley Red Label tourer	£265
1935 Delage 2½-litre, Type D.E.15, Fernandez	£325
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THE latest edition of the Emeryson "500", which appeared for tests recently at Brands Hatch, embodies a number of improvements over last year's cars. Whilst retaining its characteristic front-wheel-drive system and forward-mounted "double-knocker" Norton engine, notable changes have now been made in the suspension. The aero-elastics previously employed have been replaced by helical springs fitted over Newton hydraulic damper struts, using wishbone links at the front, and a simple de Dion layout at the rear. This suspension gives a vertical movement of 5 ins. and offers the advantage to owner-drivers of being far easier to maintain than the former rubber layout, with which they were prone to experiment, often with discouraging results.

The frame of the Emeryson consists of two 2½ ins. dia., 16 gauge steel tubular longerons with four cross members, the foremost of which acts as a torque bar and the top wishbone pivot, and supports the front engine bearers. The de Dion cross member is of plain straight tubing, while the rear frame cross tube is a rigid hooped member which performs the duties of roll bar, body support and the top mounting for the suspension struts.

Total weight of this ingenious little machine has been reduced from 571 lbs. to under 500 lbs., and with the aid of a highly tuned Norton power unit supplied by Harold Daniell, it is hoped to step up considerably on previous performance.

THAT G.P. LOOK: (Above) The sleek bonnet line on the latest edition of the Emeryson 500 hardly suggests that it conceals a twin o.h.c. Norton power unit. (Right) The aluminium body sweeps out at the rear to enclose the de Dion type suspension.



The aluminium body is the work of Adams and Robinson Ltd., of Sunbury-on-Thames, C. Robinson being responsible in recent years for the coachwork on the prototype sports Cooper with Triumph twin engine, the Pycroft Special Jaguar, and several rebuilt Austins and M.G.s.



CARROSSERIE SUISSE: A drophead coupé by Graber of Switzerland on a DB2 Aston Martin chassis, is one of the Aston Martin exhibits at the Geneva show, which opened yesterday.

RILEY M.C. (N.W. CENTRE)

THE North-Western Centre of the Riley Motor Club stages its Map Navigation Trial on 25th May, 1952, with six driving tests en route.

The event is to be known as the Navigation and Map Reading Trial, the premier trophy for this being the Jimmy Cocker Trophy; the trial will start from Gawsorth, near Macclesfield, and will be run around the Buxton area.

Map references will be used, and competitors will require a one-inch Ordnance Survey Map No. 111, Buxton and Matlock. All the roads used, and tests laid down will be completely undamaging to any Riley car. The route will include a lunch stop, and a meal will be available at the finish, which will be near Buxton.

V.C.C., S.W. SECTION

THE Veteran Car Club of Great Britain, South-Western Section, held a Social Evening in Plymouth, on Saturday, 15th March.

There was a film show of various veteran events during the year, including several different films of the London to Brighton Run. The 1951 Castrol Racing Film, having been released on 14th March, had its first public showing.

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